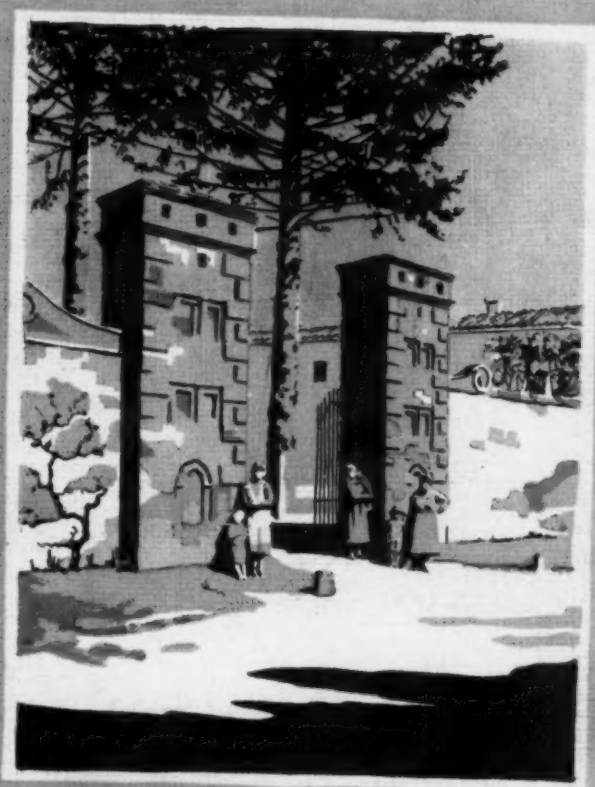


AUG 11 1927

# THE ARCHITECTURAL FORUM



## AUGUST 1927



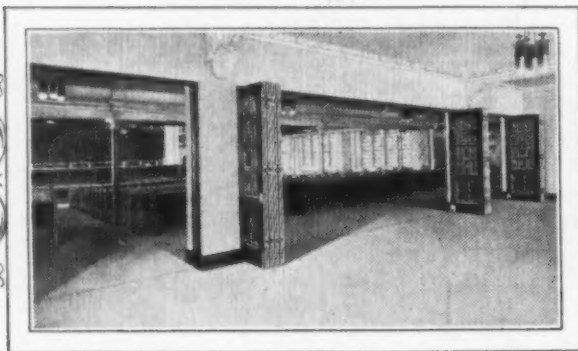
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# The ARCHITECTURAL FORUM

VOLUME XLVII

Established 1892

NUMBER 2

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# THE EDITOR'S FORUM

## AMERICAN SCHOOLS OF LANDSCAPE ARCHITECTURE

SINCE the School of Landscape Architecture was established at Harvard University in 1900 there have been many similar courses established in other universities, and instruction in this subject has made rapid strides. Today there are about 20 schools offering full courses of instruction leading to a bachelor's or master's degree. While there are several schools that are open to men only, there are several open only to women. The majority, however, are coeducational. In many instances these schools have been established in departments of horticulture or floriculture, just as architectural schools have been placed under engineering, but through the influence of the National Conference on Instruction in Landscape Architecture the tendency today is to place these schools in divisions of fine arts, as at Cornell, where architecture, fine arts and landscape architecture are in the School of Architecture, and as at Pennsylvania, where these same departments, together with a department of music, are in the School of Fine Arts. At Harvard the Departments of Architecture and Landscape Architecture have always been independent of the other departments of the University, but have always worked in close cooperation, and the tendency with all the leading schools such as Michigan, Illinois, Ohio State and Iowa State is toward cooperation between these two closely allied courses of study.

At its meeting last year, the National Conference on Instruction in Landscape Architecture approved the five-year undergraduate course. It is believed that this will tend to make easier cooperation between the allied professions of architecture and landscape architecture, since today our architectural schools are adopting five-year courses. Just as the American Academy in Rome established its Fellowship in Landscape Architecture in 1914, with the idea of having representatives of all the arts at their institution, so too in time it is hoped to establish similar close cooperation between the students in universities. In no two professions is cooperation so important as between architecture and landscape architecture, and the beneficial influence of having students in these courses working and playing together in universities will become apparent in years to come when these men are practicing their professions and continuing the pleasant relations and understandings that they established when they were undergraduates. This association would redound to the advantage of these professions, the members of which are necessarily brought into close relations.

## RECENT PRIZES IN ARCHITECTURE AT PRINCETON UNIVERSITY

THE program for the 1927-28 competition for the Princeton Prizes in Architecture called for the designing of a memorial group of buildings on a university campus, the group to consist of an auditorium, a library, an art museum and a tower, arranged about a quadrangle dedicated to the Liberal Arts. Drawings submitted were of an unusually high quality and indicated an excellent grasp of the problem. The prizes were awarded to Martin L. Beck, of New York, and John A. Nelson, of Watertown, Mass., and honorable mentions were awarded to Alan C. Davoll of New York, and Harry Gulesian, of Ashmont, Mass. The prizes amount to \$800 each, and entitle the winners to spend a year in the advanced class of the Princeton School of Architecture. The Jury of Award, which met at Princeton on June 16, 1927, consisted of Messrs. Corbett, D'Amato, Githens, Licht, and Morgan.

## AN HONORARY MEMBERSHIP

AT a recent banquet given by the Chicago Chapter of the American Institute of Architects, an honorary membership in the Institute was presented to Charles H. Wacker, for 18 years Chairman of the Chicago Plan Commission, and one of the directors of the World's Columbian Exposition in 1893.

## A MEMORIAL THEATER

THERE has been opened a competition for designs for the new Shakespeare Memorial Theater at Stratford-on-Avon to replace the structure destroyed by fire in 1926. Details regarding the program may be obtained from the Secretary of the Shakespeare Memorial Theater Association, 150 Nassau Street, New York. The site which has been secured for the new building is an enlargement of the old site on the banks of the Avon. The destroyed theater, of which only the ruined walls remain, stood between the Avon and the road leading to the church where Shakespeare is buried. The selection of a design has been placed in the hands of the Royal Institute of British Architects. The judges of the competition will be E. Guy Dawber, President of the Royal Institute of British Architects; Cass Gilbert, President of the National Academy of Design of the United States; and Robert Atkinson, Director of Education for the Architectural Association. It is the hope of those in charge that the citizens of all English-speaking countries will unite to secure in the rebuilt theater at Stratford an appropriate and practical memorial to the greatest of English poets.

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## To Architects

\$15,000,000 annually for office changes to meet the demands of new tenants and old—that is the tax which building owners throughout the country are paying, according to a survey made by Mr. George R. Bailey, research engineer for the National Association of Building Owners and Managers. Now architects, owners and managers have found a way to reduce this tax. A brief description of this proven method and the important part played by office partition, is detailed in this article.

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BOURGES CATHEDRAL FROM THE SOUTHEAST

From a Water Color by Otto F. Langmann

# The ARCHITECTURAL FORUM

Volume XLVII

AUGUST 1927

Number 2

## The Stevens Hotel, Chicago

HOLABIRD & ROCHE, Architects

By HENRY J. B. HASKINS

FEW of the great cities of the world are so situated that their principal thoroughfares present unbroken fronts to wide open spaces or waterfronts. Perhaps Edinburgh, Stockholm and Shanghai are chief among those favored cities which are comparable with Chicago in the settings they afford structures erected on their main thoroughfares and in their most commanding positions.

The waterfront of Chicago is destined, when fully developed, to be one of the most beautiful city parks in existence, and fortunate indeed are the buildings which face upon it. Michigan Avenue, in one unbroken sweep of considerably over a mile in length, enjoys this advantage; the block upon which the Stevens Hotel is erected is only just a little to the south of the center of the park, and as a result it enjoys to the fullest degree all of the benefits this great civic development affords. Situated on the front portion of the entire block bounded by Michigan Avenue on the east, Wabash Avenue on the west and Seventh and Eighth Streets on the north and south, the Stevens Hotel is ideally located in relation to the ultimate development of Chicago, as outlined by the Chicago Plan Commission, in its freedom from noise, and it is immediately accessible from the avenues of communication leading to and from all parts of the city. It is in the very heart of Chicago.

From a view of the building obtained during an automobile trip along Chicago's outer drive, one is able to appreciate to the fullest extent the advantages enjoyed by the Stevens Hotel in its location. Here also one is forcibly impressed with the magnitude of the undertaking, and with the great beauty of the results obtained. It will be apparent that designing the exterior of this building presented a problem quite different from that usually met with in designing the average Chicago structure, which is hidden in the labyrinth of streets and depends upon its height for the amount of skyline exposed to view. The Stevens Hotel presents its magnificence to the world in a bold and straightforward manner, without ostentation, and it is free for all time from the possible obstruction of neighboring structures, which mars so many notable buildings.

To the observant eye, the disposition of the major spaces of the building is clearly discernible, and this

fact is perhaps one reason for the success of the design. The base, below the level of the courts, is of limestone with a sub-base of pink granite. Into this sub-base open the fronts of the shops which occur on the ground floor of the hotel. These shop fronts, which have ornamental cast iron frames, have been kept quite subordinate in their areas to the rest of the granite sub-base, giving full architectural value to the granite as supporting the structure. This is possible, since the shops are not commercial in the ordinary sense, but are primarily included in the layout to supply the needs of the guests of the hotel, who, it must be remembered, are as numerous as the inhabitants of a town of many thousand population,—almost a small city.

In the stone base of the building are incorporated the lofty and dignified windows lighting several of the larger units on the second floor level, including the main dining room, lounge, main ballroom, etc. Viewed from the exterior, on the Michigan Avenue front, this array of balconied windows, 400 feet long, is tremendously impressive, the windows affording a fine view at all times, and on gala occasions offering a close-up view of parades and the like. The shafts of the pavilions are of brick, penetrated in a regular, rhythmic and patternlike manner with uniformly sized windows, expressive of exactly what they are,—a grouping of thousands of bedroom windows so deftly arranged that no one room would appear to have the advantage over its neighbors in light, air and view, but rather that all enjoy them to the fullest degree. The exterior treatment is carried around all the walls of the structure, and the fire escapes are successfully placed on the alley at the rear of the building, wholly out of sight.

The upper portion of the structure, embracing three stories, is almost entirely of limestone, architecturally completing each pavilion as an individual unit, and also tying together and unifying the building as a whole. This unification of parts is further emphasized by the introduction of superimposed structures, including a promenade around the center portion of the building and an imposing tower over the center block where, among other things, there will be located a radio studio, for broadcasting through a remote-control station. In a structure of

this kind more than of any other is the exterior design influenced by the practical arrangements of the plan, and here the great mass of the building, public in character, called for a quiet dignity of expression, which should be satisfying and secure for all time against passing architectural fads and fancies. The motifs used throughout the exterior have been taken from the French periods of architecture,—Louis XIV, XV and XVI,—and they have been very freely though very carefully used, producing a building the exterior of which is imposing, yet dignified, commanding yet inviting, colossal yet refined, in all ways appearing to be just what it is,—a worthy addition to the ever-increasing number of Chicago's beautiful and practical buildings, and in its own field a structure that is second to none anywhere.

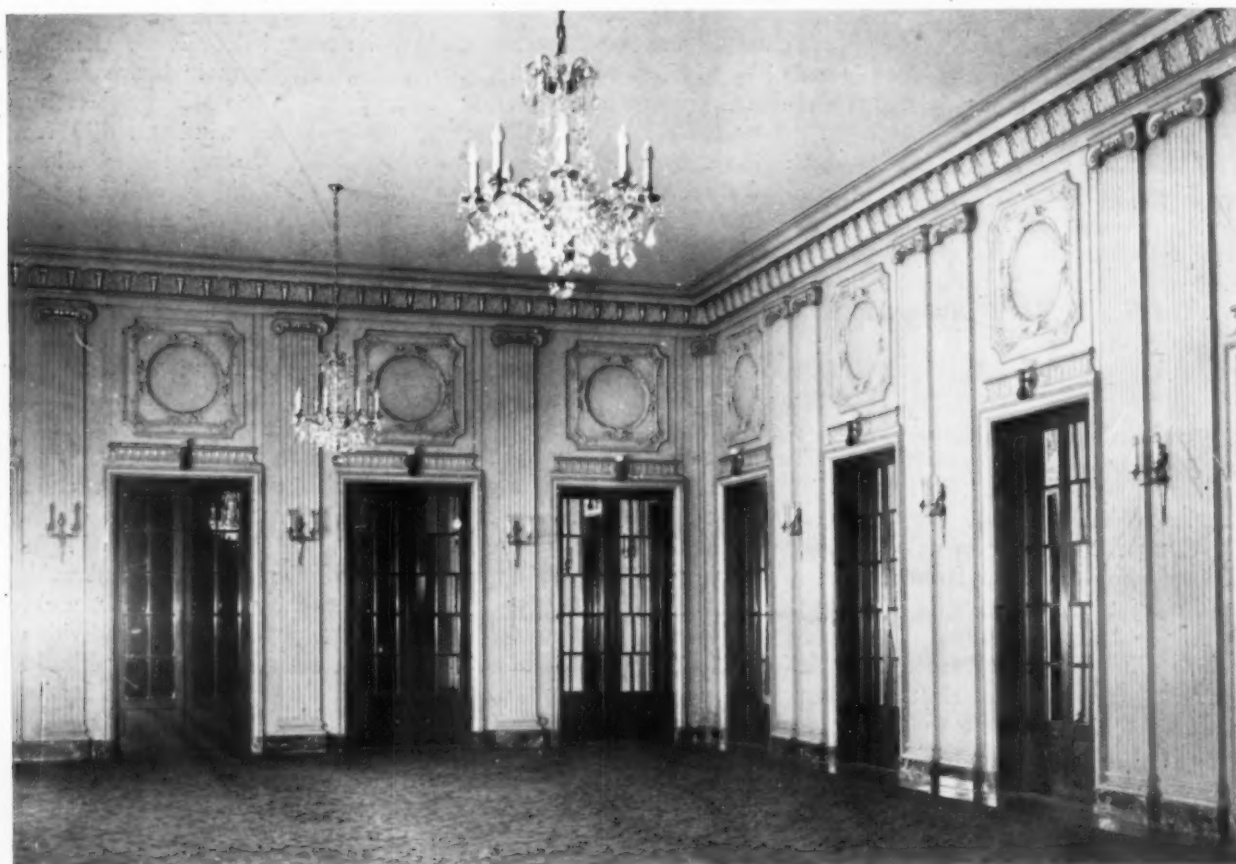
Anyone can very readily appreciate the gigantic task involved in the planning of such a city in a block, as indeed the Stevens Hotel is. Conceive of a jig-saw puzzle of some 5000 parts to be sorted and shifted, correlated and arranged, until a perfect working whole is produced, and a slight idea of the difficulty can be imagined. As with a puzzle, units of similar sizes and intended for similar uses belong together, and the 2810 typical bedroom units offered the logical point at which to commence the arrangement of the plans, which required the greatest skill.

It is interesting to know that over 10,000 distinct and individual drawings were made for the erection of the hotel. In the early stages of the planning,

installation of two separate groups of elevators was proposed, and more wings or pavilions were indicated. Gradually, by a process of elimination and improvement, the plan crystallized around a centrally controlled group of elevators opening onto the 400-foot corridor which traverses the entire length of the hotel, and off which four transverse corridors lead to the individual pavilions. A considerable amount of possible room accommodation was sacrificed to permit of the extra wide courts which now provide an abundance of light and air to all rooms and offer to the majority of the rooms an uninterrupted view over Lake Michigan almost to the Michigan shore.

Each of the typical floors is controlled by a floor clerk located at the end of the elevator lobby and having complete observance of all incoming and outgoing guests, and who is in touch with every activity of the hotel by pneumatic tube systems. Adjacent to the desk of each floor clerk is a reception room for visitors' use. It is interesting to note that in order to arrive at the best possible results in bedroom arrangement, several model bedrooms were erected at the LaSalle Hotel, with bathrooms, closets and furnishings complete in every possible way.

The early studies determined the placing of the public rooms on the lower floors, avoiding placing too heavy a tax on the elevators, affording easy accessibility and concentrating rooms for public functions and the various utilities connected with them. The main entrance to the hotel, centrally



Photos. Tebbs & Knell, Inc.

Elevator Lobby, Second Floor, Stevens Hotel, Chicago  
Holabird & Roche, Architects



situated on Michigan Avenue, opens through the east corridor directly into the grand stair hall, or by a turn to the right or left to the office lobby or the south lobby, affording general access to all parts of the house. The Seventh Street doorway, or what might be called the entrance from the "loop," opens almost directly into the office lobby, with ready access to the Colchester Grill, the basement lunch room, toilet rooms, and other departments that are arranged at this end of the building. The Eighth Street doorway may well be termed the "social" entrance to the hotel, giving direct access to the unusual and complete facilities of the banquet check room, to the grand banquet hall above, and to the enormous exhibition hall below. Both of the latter spaces, in addition to the assembly room and lesser banquet halls of the third floor, are arranged to function together, and can adequately take care of the largest of public gatherings. The kitchens, it will be noted, are placed at the rear center of the plan, and are arranged to give service in all directions to the various rooms grouped around them.

Entering the hotel through the bronze glazed doors of the Seventh Street entrance, one passes through a spacious vestibule to a wide corridor leading to the office lobby. The vestibule and corridor have the walls lined to their full height with red marble; the floors are gray marble in pattern, and the ceilings are of beautifully modeled low-relief ornamental plaster, vaulted and decorated in cream

and gold. From the corridor, entrance is afforded to the corner store through a bronze finished doorway, flanked with unique individual show windows. An interesting feature is the grouping of house telephones, arranged in recessed marble niches framed with ornamental bronze frames. The entrance lobby to the Colchester Grill is finished in plaster in Louis XV style, lined with mirrored doors, and decorated in black, gray and gold, while off the lobby are located a check room and a women's reception room, which are finished alike in a rich and warm gray.

The table d'hote dining room, which has been given the attractive name of the "Colchester Grill," should delight the eyes of all those restless individuals forever demanding something new. A most engaging vista is had from the short flight of steps leading down to the room. Here we find an ultra-modern treatment that will satisfy the most exacting taste. The columns, which are enclosed with black and gold marble, contain mirrors with elaborately ornamented and gilded frames. The ceiling is vaulted in plaster with ornament radiating from the columns along the intersecting lines of the vaults. The floor is of a gray marble in patterns. The walls are skillfully lightened in effect with framed mirrors, a continuation of the window treatment around the inside walls, and the ornamental grilles and other details give a highly architectural character to the general scheme. The room is in every sense a daylight room and is 65 by 80 feet in its dimensions.



Elevator Lobby, First Floor, Stevens Hotel, Chicago  
Holabird & Roche, Architects

Crossing the east corridor, the visitor to the hotel enters the great stair hall and is impressed by its grandeur and magnificence. Here indeed is the *pièce de résistance* of the building, the very heart of its architectural glory, directing with a gesture the royal road to the great public spaces just above. From the floor, which is interestingly patterned with gray and black marbles, the stairs lead on either side in a series of flights, terraces and landings to the main dining room and lounge level. This great stair hall is 46 feet wide by 140 feet long, and is of immense height. The stair treads are gray with an interesting use of black marble in the risers. The hall is interestingly designed in the Louis XVI style after the stone stair hall of the Petit Trianon. The walls are of Roman travertine in which the holes peculiar to this material have been filled with cement. The lower portions of the walls are rusticated, forming a support for the pilasters and columns of the arcaded treatment of the upper portion. This in turn carries a plaster ceiling having the decorations in a wood finish characteristic of this style, richly decorated in dull gold, and with the large panels given a conventional open sky treatment with flying figures after the manner of this period. The effect is heightened by the use of hammered wrought iron balustrades in the openings on the second floor level, and iron railings for the stairs and within the arches.

On the west side of the Eighth Street lobby, two openings afford entrance to the banquet check room.

and this is probably one of the largest installations of its kind; there are facilities for taking care of 3000 guests with ease and dispatch. The various spaces are attractively fitted up, have black marble counters, and are decorated in blue and gold. Off this section are 12 dressing rooms and also 12 other rooms off the south parlor. Each room has its lavatory, dressing table, etc., and is a complete boudoir in itself. The men's cafe is readily accessible from the west corridor, but at the same time it is separated from it by a lobby on either side of which are a check room and cigar counter. This insures that privacy which is considered to be so essential in this sort of a room. The walls, columns and the ceiling beams are paneled with sand-blasted, quarter-sawed oak, designed in a very restrained version of the Louis XV style. The ceilings of plaster are finished in a warm buff, and the floors are gray and black marbles. The room has an attractive chimneypiece, and is warm, inviting, and in every sense a real men's room,—a highly successful men's restaurant.

Off the west corridor, in connection with the banquet check room, is the banquet hall staircase leading to the grand ballroom foyer on the second floor. This has marble treads and risers and wrought iron railings, and it winds up past three paintings set in the wall panels which were designed to receive them.

If only by virtue of its size, the grand ballroom is the most important. It is located on the second floor of the hotel, fronting on Eighth Street and



Pompeian Room, Stevens Hotel, Chicago

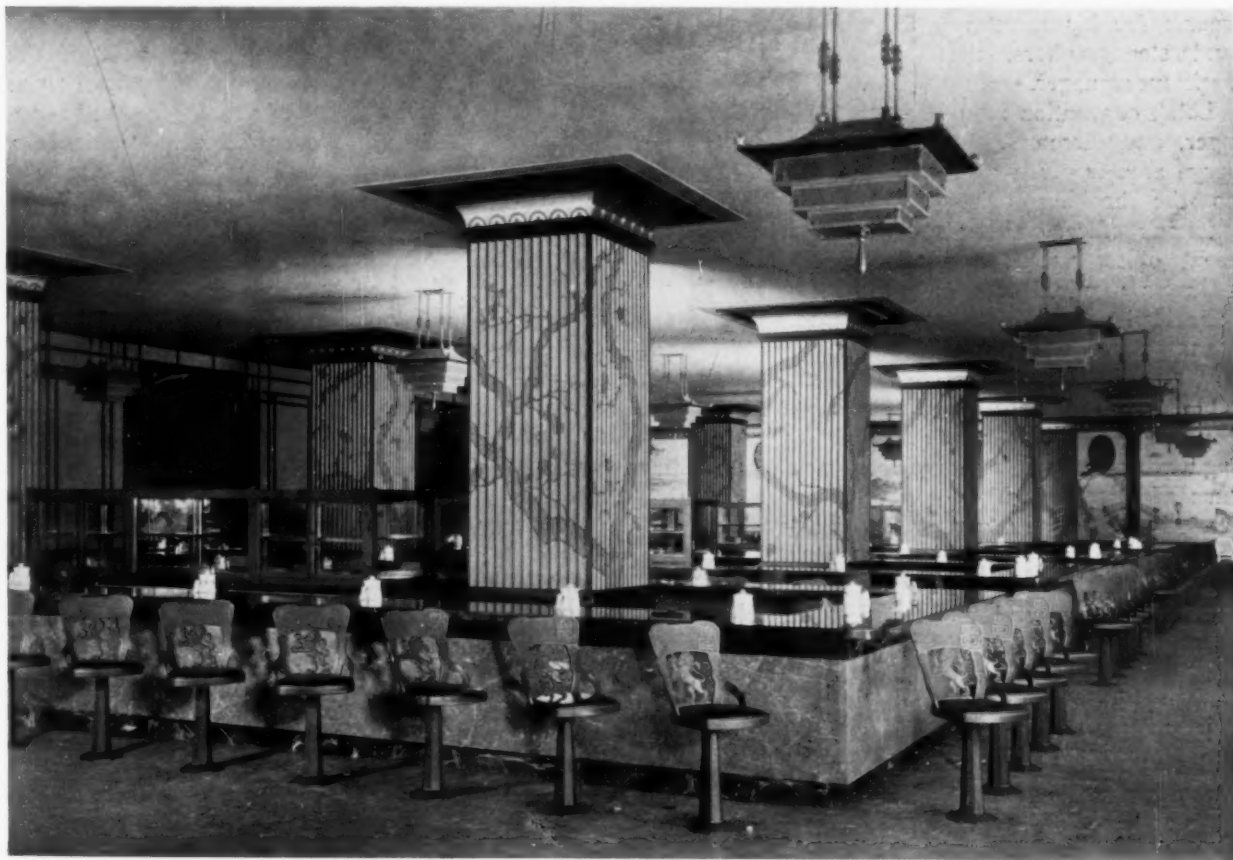
Holabird & Roche, Architects

Michigan Avenue. The hotel entrance specially arranged for use in connection with the grand ballroom is located on Eighth Street and opens onto a spacious lobby off which are arranged checking facilities. The checkrooms, of course, afford every possible convenience in the way of toilet accommodations, individual dressing rooms, etc., while the hairdressing rooms are immediately adjacent. From the check room entrance is obtained immediately to the lobby containing the banquet hall stairs, affording easy and direct access to the assembly room on the second floor, from which the grand banquet hall is reached. The main bank of passenger elevators is immediately adjoining the assembly room, which is also directly approached from the writing room, the lounge and the grand stair hall. From the assembly room many openings give entrance to the grand ballroom, which is a little more than 80 feet wide by approximately 165 feet long and 35 feet high. The floor area is approximately 14,000 square feet. There is a balcony about 8 feet wide extending around the room. The seating capacity for banquet purposes is 3,000. The grand ballroom has an oak parquet floor on the main floor and a rubber tile floor on the balcony. The walls are lined with marble from the floor to the under side of the balcony, and there is a base of the same material around the balcony, protecting the decorated walls.

The lighting of the room, in addition to wall fixtures, is afforded by ten exquisitely designed large

crystal chandeliers, designed by Vian of Paris, and some of these are ingeniously grouped at the center of the room in such a manner that with the use of wall hangings, suspended from hooks in the ceiling, the center portion of the room can be enclosed in the form of a small but perfect theater. This arrangement makes use of the speaker's platform at the side as a stage. A motion picture booth is provided, using a full-sized theatrical silver screen. Hooks are provided in the ceiling for the support of anything that it may be desired to hang, and the floors are sufficiently strong for the display of the heaviest truck, automobile, or machinery, any of which can be easily brought into this space. Ordinarily the room is one large open hall, capable of housing a circus if necessary, but arrangements are made for its division into areas for approximately 98 exhibition booths, with the necessary circulation spaces; each booth space is supplied with live steam, gas, electricity, air and all possible mechanical requirements for any kind of exhibit likely to be held.

The main dining room is a room of fine dignity. It is approached from the north end of the grand stair hall through an entrance lobby opening into the raised portion of the room on the west side. This side of the room is connected with the lower level, which parallels Michigan Avenue, by two broad flights of steps, flanked with gray marble abutments. The two levels are separated by a pilastered arcade running the full length of the room, the openings



Lunch Room, Stevens Hotel, Chicago  
Holabird & Roche, Architects



between which are enclosed by balustrades. Thus the patrons in the upper level will enjoy the same superb outlook toward the lake as those on the lower. The style used is that of Louis XVI, and is carried out mainly in plaster with bases and sub-bases of verde antique marble. Between the windows the walls are treated with mirrored panels, surrounding the crystal lighting fixtures and surmounted by painted panels in the manner characteristic of the period. The floor is laid with gray marble squares, separated by white marble bands, and the room is decorated in gray and gold and hung with rose silk hangings. An atmosphere of refined architectural solidity and permanence is given to the room by the use of the arcaded dividing wall and the long row of free-standing supports.

The "controlling brains" of the hotel occupy the fourth floor of the center pavilion, and the accommodation for them is necessarily ample. Here we find the manager's office, with rooms for his secretary and stenographers, the assistant manager, maitre d'hotel, convention manager, and directors. A large area is given over to the booking office, auditor's office, waiting room, paymaster, employment office, vaults, and all the other necessary adjuncts required to complete what might be the City Hall of the Stevens City. The walls of the manager's office are finished with light oak paneling, and those in the directors' room in dark oak. There is a very spacious library finished in walnut paneling, fitted with racks and shelving, and affording a pleasant lounging place for guests of a literary turn of mind in which to keep in touch with the latest books. The room has a capacity of approximately 15,000 volumes. Sample rooms for the use of commercial salesmen occupy most of the remaining fourth-floor level, and mention should be made of the telephone exchange, which is necessarily extensive to handle the vast number of calls which will be made into and out of the hotel in even a single day.

Each of the typical floors contains approximately 140 rooms, and all open from spacious corridors which are heavily carpeted, with painted paneled walls and corniced ceilings. All rooms enjoy ample light and view, and have bathrooms and closets in connection. Suites are arranged at the ends of the

pavilions. The rooms are variously decorated, with paper and paneled walls, and are variously furnished.

Opening from the north corridor, and almost directly from the stairway, there is a decidedly attractive and unusual lunch room capable of seating 200,—"tea garden" would perhaps be a more appropriate name, as it is a veritable Japanese fairyland. The pilasters around the room are characteristically painted in harmony with the walls, and frame beautiful painted panels. The green in the rubber tile

floor, and in the verde antique marble counter tops forms a delightful contrast to this colorful effect. The counter fronts are quietly treated with royal gray marble. The glass lighting fixtures and the solid bronze seats form delightful adjuncts to this attractive oriental setting.

From the south ends of both east and west corridors steps lead down to what is the largest exhibition hall so far constructed in connection with a hotel. This vast area affords over 35,000 square feet of exhibition space, and the arrangement of the columns suggests a series of vast halls directly connected with one another. There is area for 159 booths, approximately 10

by 10 to 10 by 12 feet. The booths are equipped with cabinets, containing power, telephone, hot and cold water, high-pressure gas and all equipment necessary for various kinds of exhibition purposes.

The interesting feature of the roof is the long arcaded promenade, tile paved and extending approximately three-quarters of the entire length of the building, or 280 feet. This is entirely of limestone; it is roofed in, but open at the sides. This is one of the finest roof gardens anywhere to be found, and by a stretch of the imagination one can conceive of being on a gigantic airplane, headed for the Michigan shore, clearly discernible on a clear day. Rising above the promenade, the center portion is carried up four floors in the form of a beautiful tower, the crowning feature of the entire design. Among the many suggestions for the use of the space this tower affords, is included a radio studio, to be connected by remote control with a broadcasting station. The Stevens Hotel represents the utmost development to which the modern hotel has been brought. Every detail of the structure is the last word in planning, design, building, and mechanism.



Telephone Lobby, Stevens Hotel  
Holabird & Roche, Architects

# ENGINEERING DEPARTMENT

## Structural Design of the Stevens Hotel

By BENJAMIN B. SHAPIRO

*Structural Engineer, Holabird & Roche, Architects*

IN years gone by the large and special rooms of hotels were placed on the upper floors, or had open courts above them, and the problems of the structural engineer were comparatively simple. It was found, however, that these rooms must be placed on the lower floors in order to prevent interruption in the normal operation and service of the hotel. The problems of the structural engineer are thus greatly complicated, and it was necessary in the case of the Stevens Hotel for him to work with the architects from the beginning while the sketches were in the rough or preliminary stage and at 1/16-inch scale.

In this hotel the most difficult problem was that of providing girders and trusses over the large public rooms. Of the 300 columns, only 123 extend from the roof to the foundations. That means that practically all the interior columns have to be supported on girders and trusses. It was apparent that the design of the typical floor construction was to be the controlling factor in the design of the heavy truss and girder work. Many designs of typical panels were worked out and analyzed as to weight and cost. It was finally decided that slab and joist construction carried by steel girders should be used. It was found that there was a saving in using this type rather than a floor construction which would give a flat surface for the ceiling. This was due to the saving in structural steel which more than made up for the increased cost of plastering. The floor construction was designed with every partition taken care of locally and not figured as a distributed load over the floor area. Every joist was designed in accordance with its actual load, and every girder was designed for the actual reactions of the joists upon them. Wire mesh was used in all floor slabs so as to have a sufficient amount of temperature reinforcing at close spacing and because of the thin slabs used.

All girders and trusses carrying columns are located between the fourth and sixth floors. Many different types of girders are used, from the single web girders, 132 inches deep, occupying a complete story height, with openings through them for corridors, to shallow double-box girders 30 inches deep.

The framing of the grand ballroom or banquet hall was one of the most interesting as well as the most difficult of the problems faced by the structural engineer. This ballroom is approximately 85 feet by 169 feet in the clear,—with its floor at the second floor level of the hotel and its ceiling at the height of

the fifth floor. Girders and trusses were introduced to carry the immense load of 21 typical floors of hotel rooms above this ballroom, not to mention the attic and roof. The great trusses designed to carry this terrific load are placed about 35 feet on centers, and each has a span of 86 feet and a depth of 31 feet, center to center of the chords, making it three stories high. Each truss carries a load of approximately 10,000,000 pounds, each supporting 5 columns directly and 13 columns indirectly. Due to the location of these columns, an unusual unsymmetrical truss design was necessary, and a combined pin-connected and riveted truss was adopted to meet the unusual conditions and take care of the corridors.

A glance at the accompanying figure will show the unusual nature of this truss and the ingenious and logical way in which the whole problem was finally solved. The peculiar construction shown at the right of the diagram was made necessary by the corridor which runs through at this point. A saddle of plates and angles is here made to hang from the end pin with two vertical hangers, giving sufficient clearance to straddle the corridors of the fifth and sixth floors. The bottom of the hangers is not connected to the bottom chord, but a stirrup is formed at their lower ends to prevent sagging in the tie-bars.

Some idea of the size of this truss is gained when one realizes that the pins in the top chord at an end post are 16 inches in diameter, over 4 feet in length, and weigh approximately 4,000 pounds each. The direct stress in the top chord of the truss is 3,660,000 pounds, besides a uniform load of 5,700 pounds per lineal foot. This necessitates a cross section area of 291 square inches. The tie-bars at the northern end of the truss have a cross section area of 192 square inches to take a direct stress of 3,000,000 pounds. The supporting of these four immense trusses was also an interesting problem. They are carried on columns 77 feet in length, built up of plates and angles with longitudinal and horizontal diaphragms. The total load carried by these columns varies from 7,000,000 to 8,000,000 pounds and requires a cross sectional area of 500 square inches. Each column was fabricated in one piece weighing from 70 to 90 tons, and measuring approximately 48 by 54 inches, as it was found impossible to design a suitable splice to be made on the site that would adequately take care of the bending of the columns.

Particular attention was given to the design of the

intermediate floors framing in between the trusses. Between the center pair of trusses, and between the other two trusses and the outside walls, plate girders 132 inches deep were framed in at the fifth story. These girders each carry two interior columns and act as ties between the bottom chords. Between the center pair of trusses and the two exterior trusses plate girders were framed to form the roof over the ballroom, and between the trusses at the north end, inverted trusses two stories high were framed.

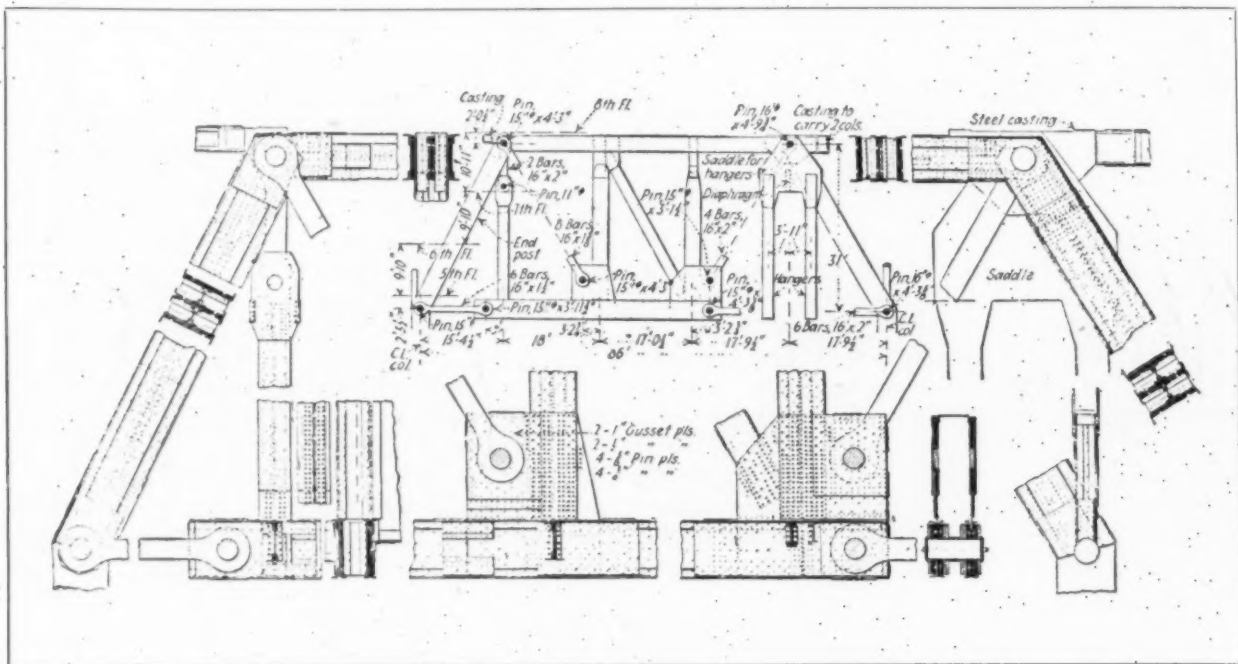
All columns rest on rolled steel slabs for base plates, these slabs varying in size from 20 inches square by  $2\frac{1}{4}$  inches thick to 42 inches square by 5 inches thick where square plates are used. The larger columns required round steel slabs as large as 94 inches in diameter and  $11\frac{1}{2}$  inches thick, round slabs being used so that there would be no difficulty in setting them in the caissons. Wherever a load on a caisson exceeded 2,000,000 pounds a 1:1:2 mix was used for the concrete which effected a considerable saving. The soil conditions in Chicago near the lake demanded special caisson work for the foundations. Due to the conditions found in sinking the test caisson, it was decided that no hardpan caissons should be used for any columns. It was even necessary to sink rock caissons to support the retaining walls around the building which do not rest upon the building caissons. Special details had to be worked out for the construction of these deep retaining walls. Instead of the usual wood drums and screws against wood walers, there were designed special steel drums against steel walers. By using these the formwork of the retaining walls could be built and the reinforcing placed for the total height of the walls. Then pouring the walls in one operation removed any danger of water leakage through

construction joints, as the steel drums and walers were left in place and encased completely in concrete. The foundation wall runs down as far as 65 feet below grade. With this deep sub-basement work came the problem of taking care of the horizontal thrust of the walls due to the soil conditions.

In order to take care of this thrust, the basement floor was designed as one great two-way concrete slab, 18 inches thick; that transfers the stress from one wall clear through the building to the other wall. For the first sub-basement floor a 10-inch concrete slab was used resting on steel, or in some places upon reinforced concrete girders. This whole system of substructure was, therefore, made self-sustaining, supported only on columns and caissons, as it was not advisable to depend upon the poor soil for the carrying of any floor load. To support the five Westinghouse generators, each producing a floor load of 2,500 pounds per square foot, a special reinforced concrete flat slab was designed to withstand vibration.

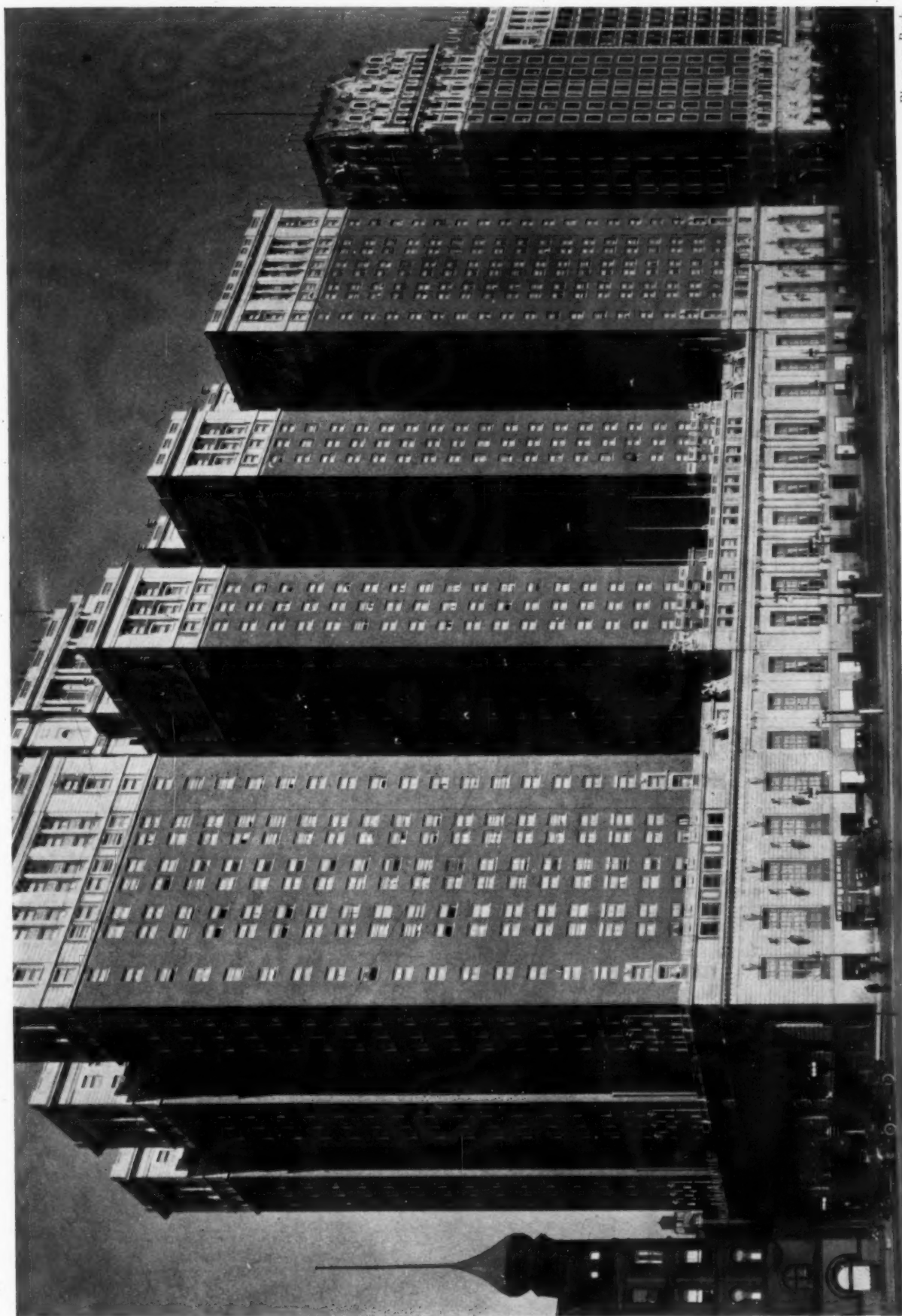
The fireproofing of all the structural steel in the building was accomplished with a 1:2:4 mix of concrete, and even the various girders and trusses were so fireproofed. In the case of the large trusses, each member was first wrapped with very fine mesh and 4 inches of concrete was poured around the outside of the mesh. The mesh was used with the columns also.

In the engineering of a building of such magnitude as the Stevens Hotel, it was necessary that the structural engineer take into consideration the various mechanical and electrical problems in order to coordinate his work with that of the other engineers to produce an efficient and serviceable structure. From the beginning and throughout the entire work the close cooperation of the engineers with the architect and owner insured the success of the undertaking.



Truss Designed to Carry 22-Story Superstructure, Stevens Hotel, Chicago  
Holabird & Roche, Architects

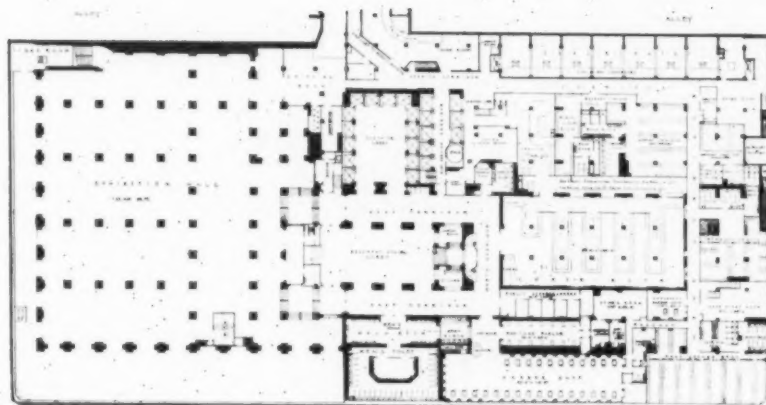




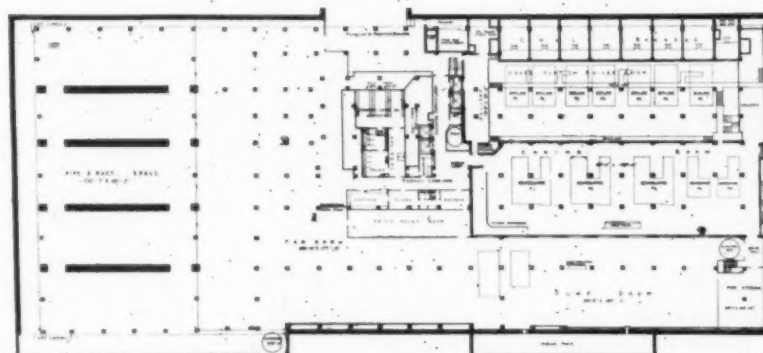
*Plans on Back*

STEVENS HOTEL, CHICAGO  
HOLABIRD & ROCHE, ARCHITECTS

*Photos, Tibbs & Knell, Inc.*



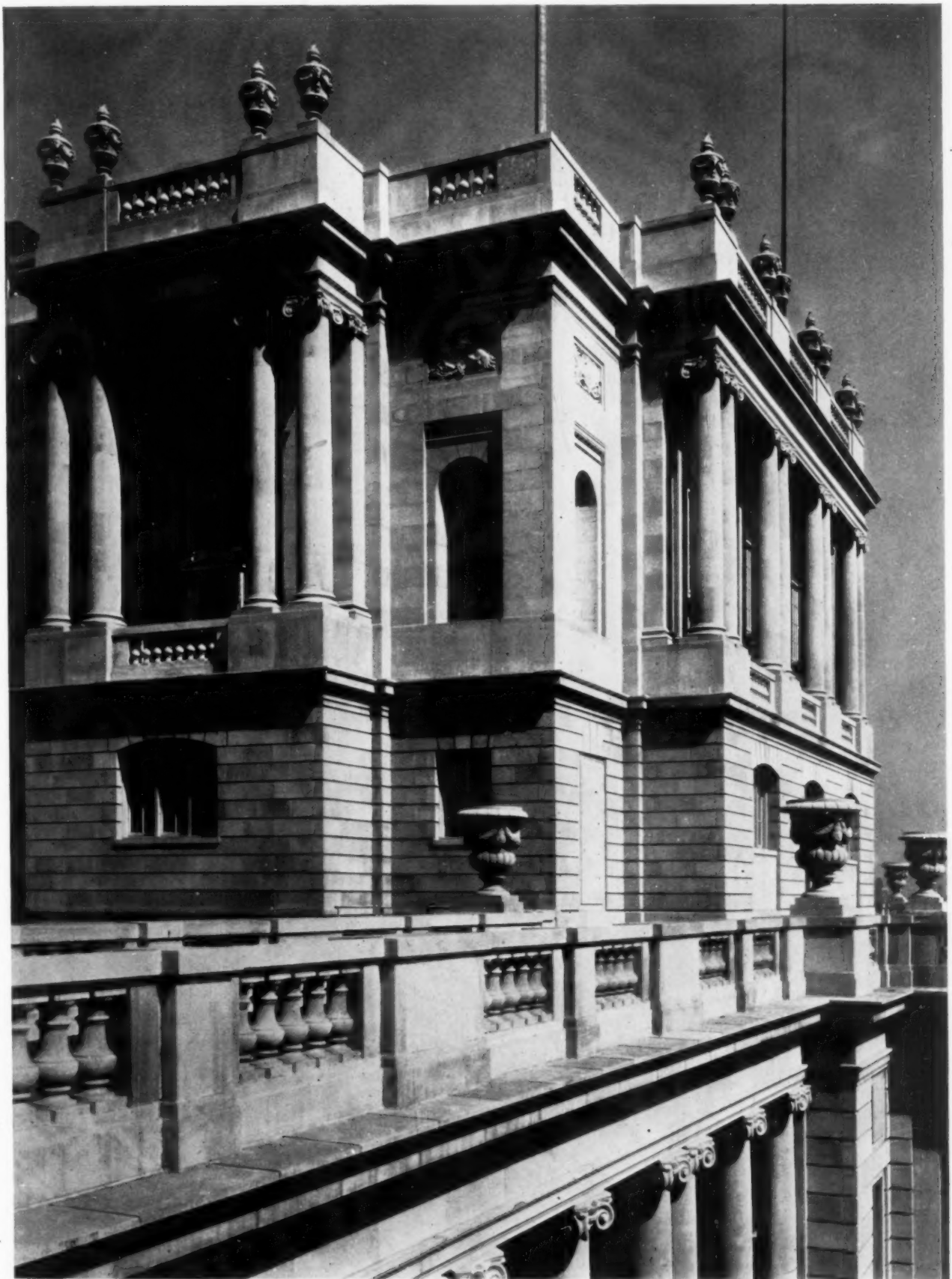
BASEMENT



SUB-BASEMENT

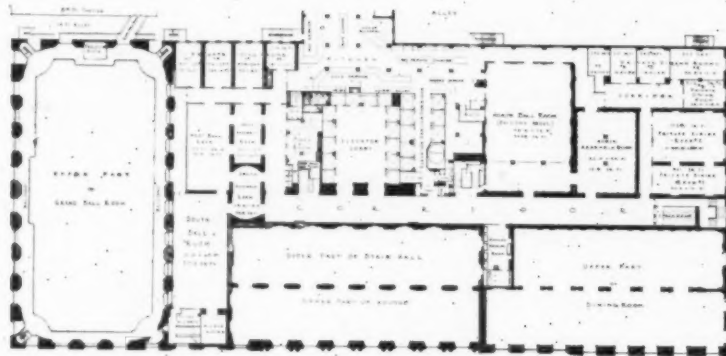
PLANS, STEVENS HOTEL, CHICAGO

HOLABIRD & ROCHE, ARCHITECTS

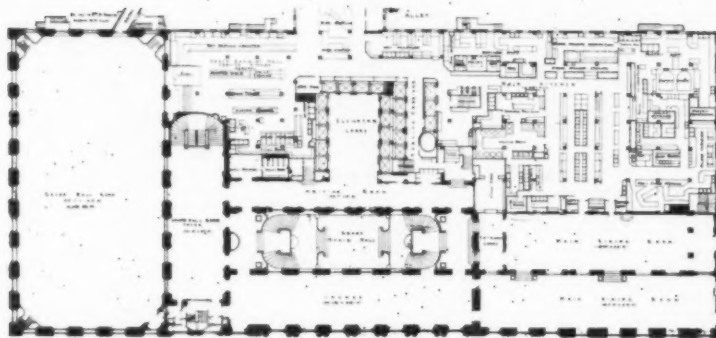


DETAIL, STEVENS HOTEL, CHICAGO  
HOLABIRD & ROCHE, ARCHITECTS

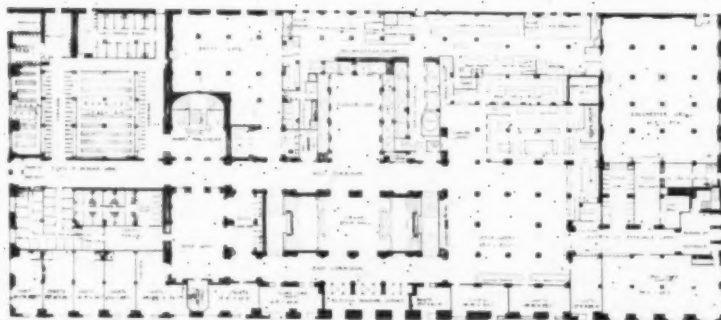




THIRD FLOOR.



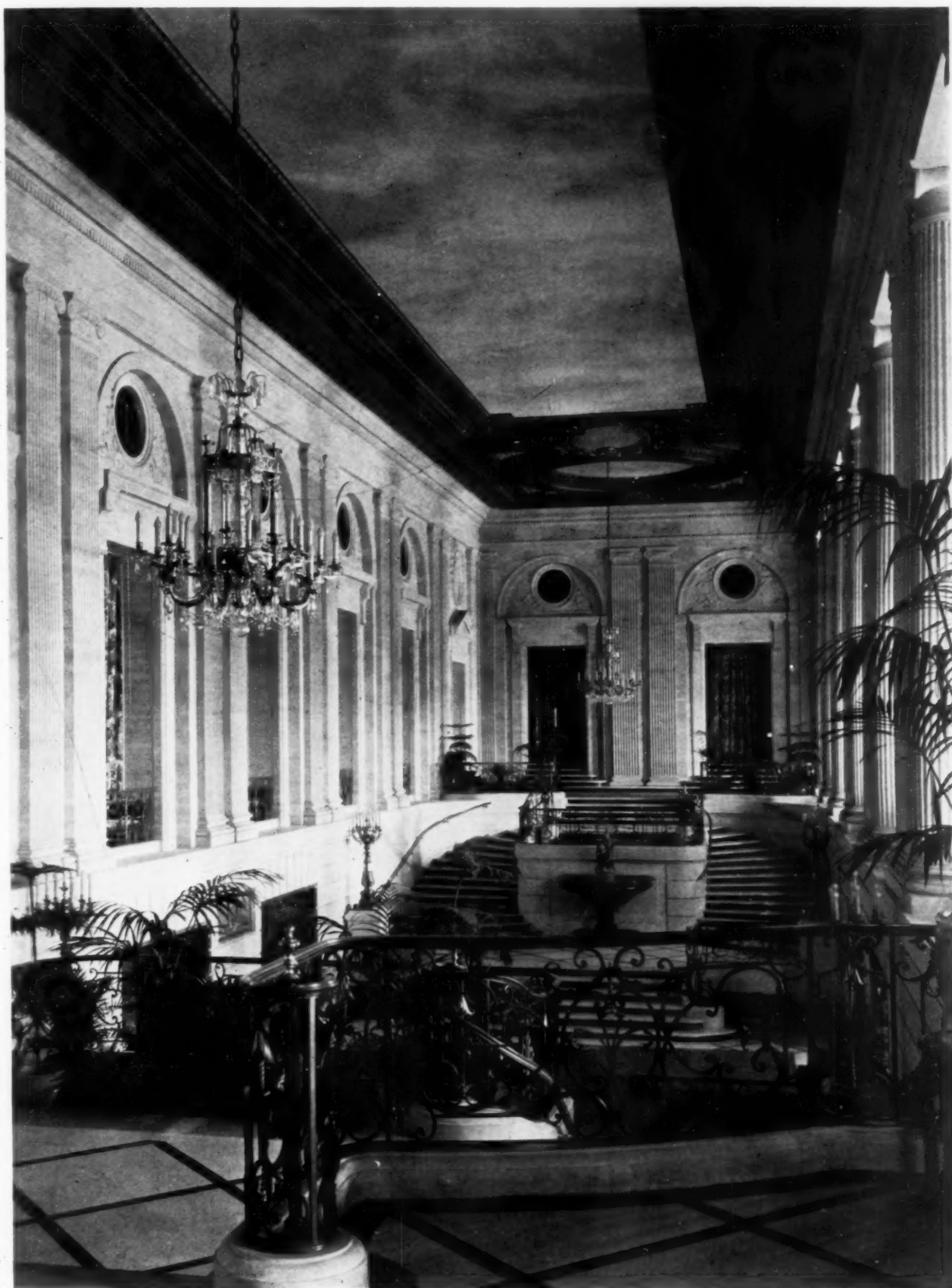
SECOND FLOOR.



FIRST FLOOR

PLANS, STEVENS HOTEL, CHICAGO

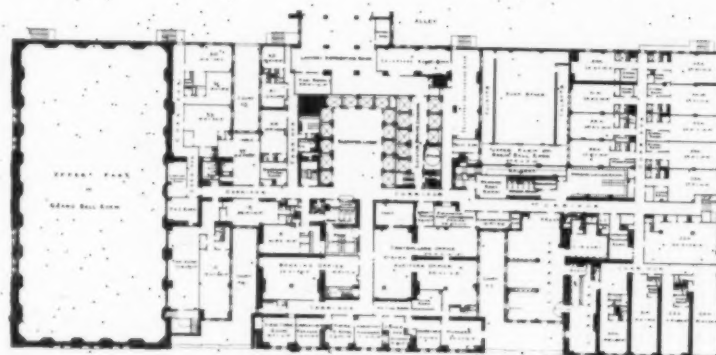
HOLABIRD & ROCHE, ARCHITECTS



STAIR HALL  
STEVENS HOTEL, CHICAGO  
HOLABIRD & ROCHE, ARCHITECTS



A TYPICAL FLOOR



FOURTH FLOOR

PLANS, STEVENS HOTEL, CHICAGO

HOLABIRD & ROCHE, ARCHITECTS





MAIN DINING ROOM  
STEVENS HOTEL, CHICAGO  
HOLABIRD & ROCHE, ARCHITECTS

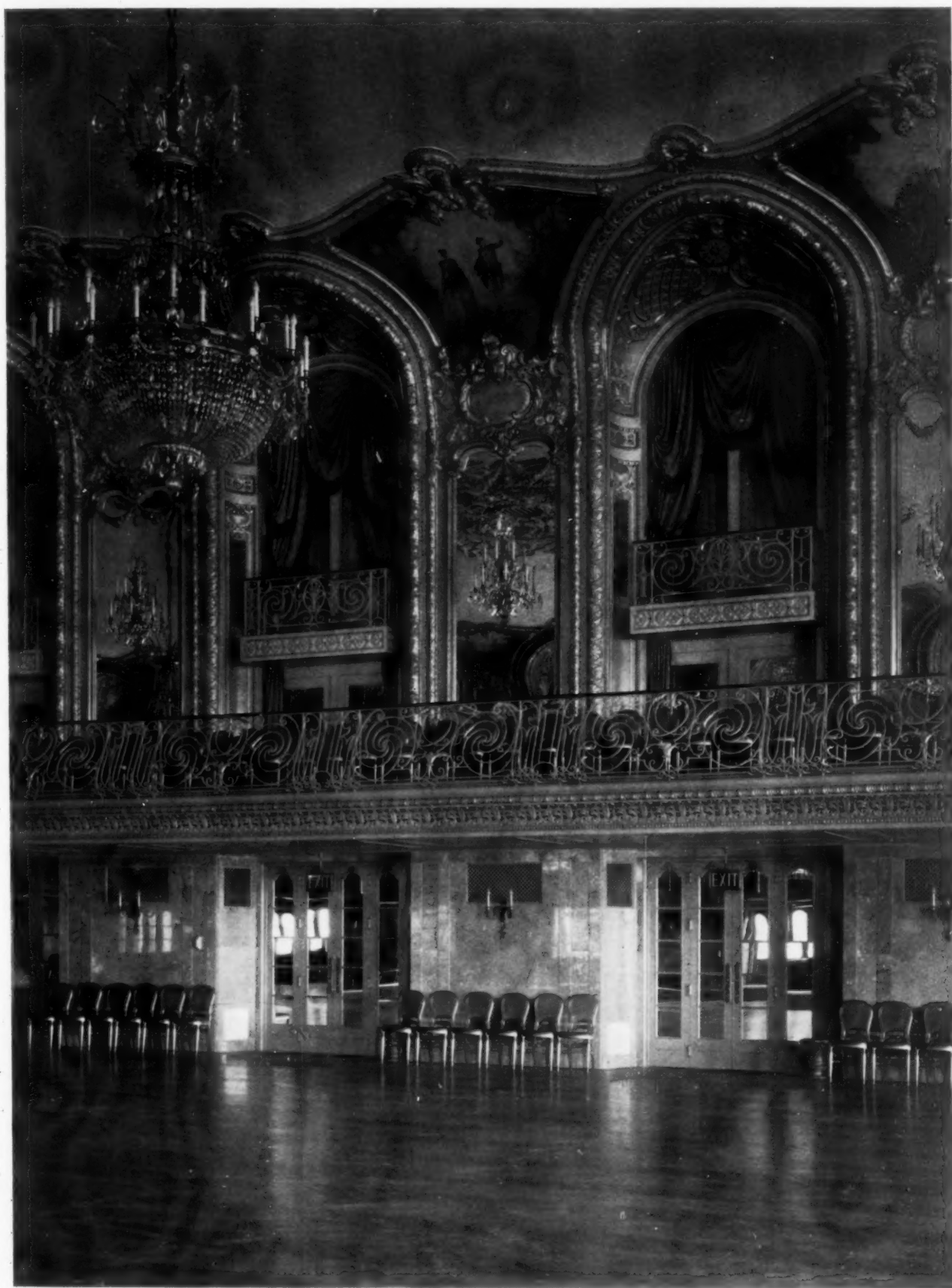




MAIN LOUNGE  
STEVENS HOTEL, CHICAGO  
HOLABIRD & ROCHE, ARCHITECTS



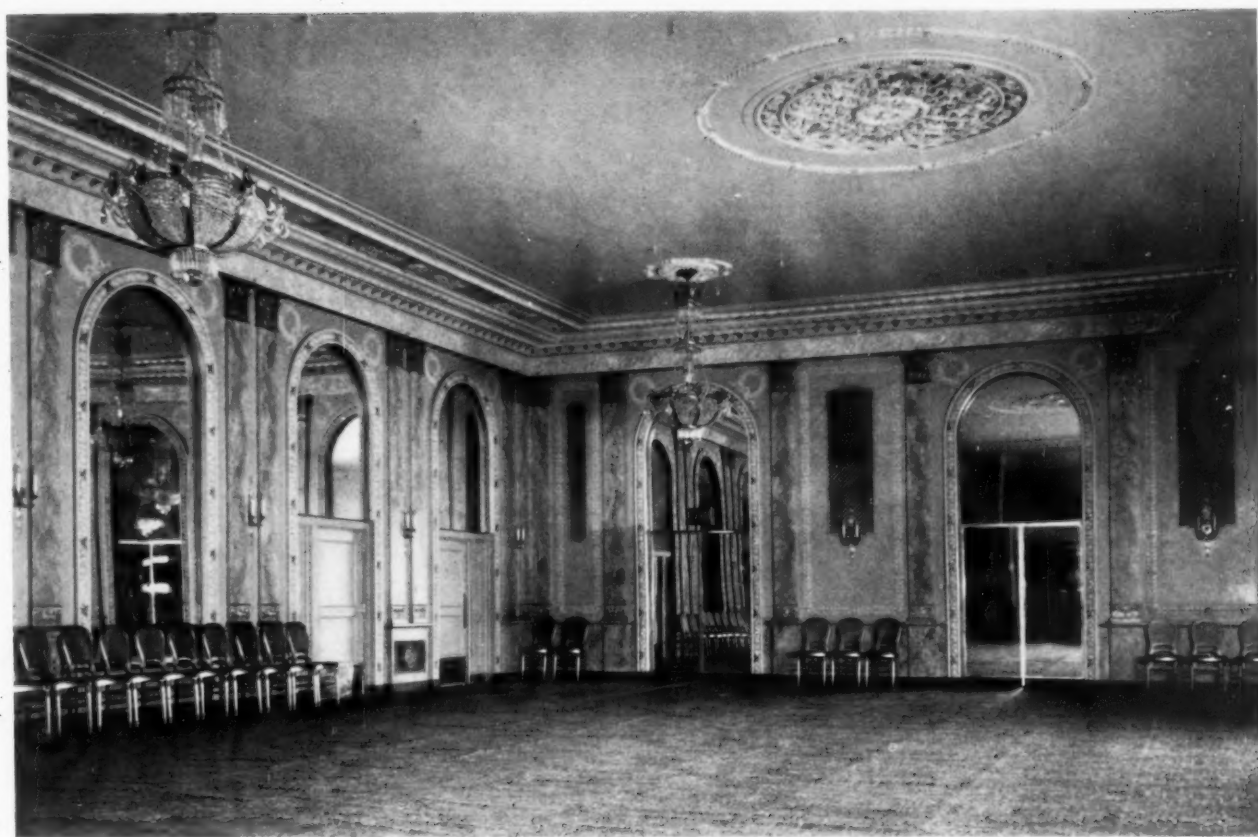




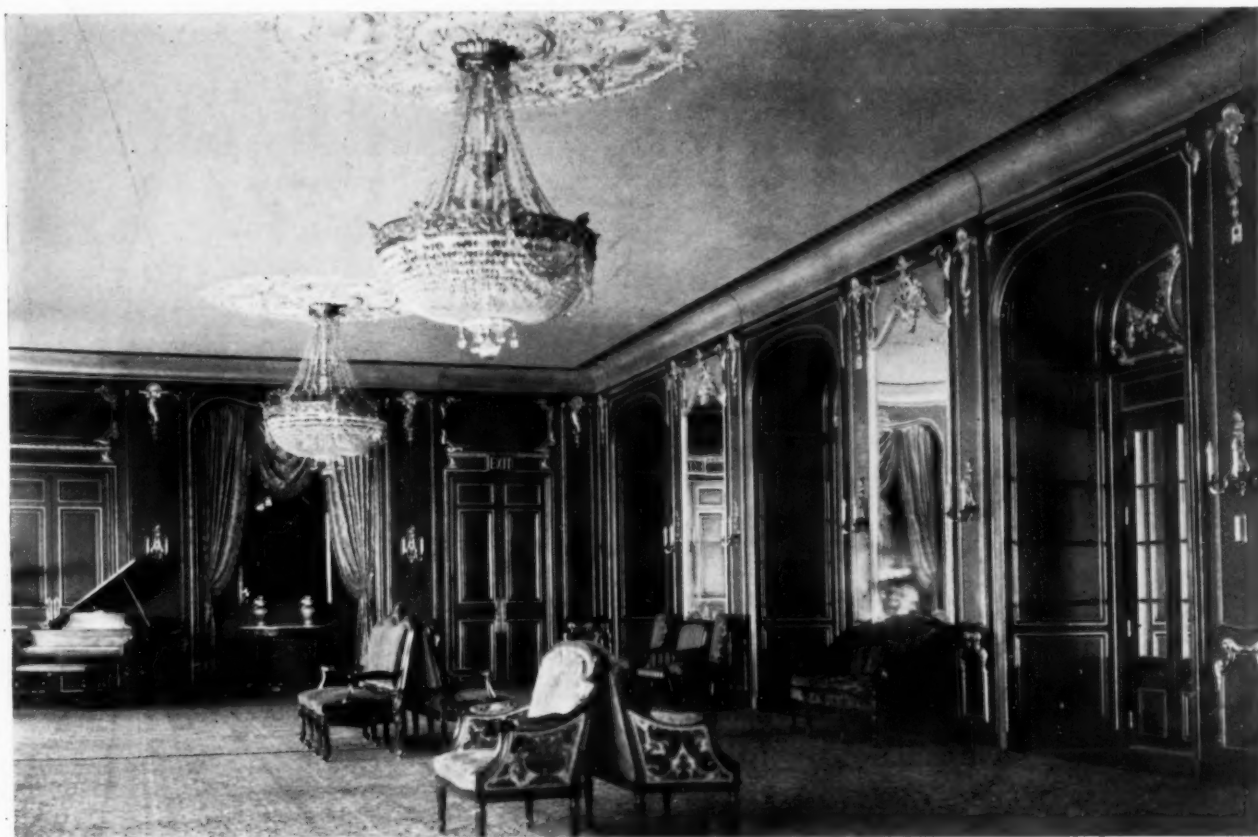
DETAIL, GRAND BALLROOM  
STEVENS HOTEL, CHICAGO  
HOLABIRD & ROCHE, ARCHITECTS







NORTH BALLROOM



MAIN ASSEMBLY ROOM  
STEVENS HOTEL, CHICAGO  
HOLABIRD & ROCHE, ARCHITECTS





MEN'S GRILL



PRIVATE DINING ROOM  
STEVENS HOTEL, CHICAGO  
HOLABIRD & ROCHE, ARCHITECTS





## Scientific Library, San Diego

By ROSE HENDERSON

AMERICAN public libraries the country over are being more thoughtfully adapted to the tastes and needs of their particular communities and so represent in an interesting way the individualities of various localities. The library is coming to have greater importance as a center of community interest, being combined in many instances with art galleries and little theaters and so deepening and enlarging its original function and appeal. The architecture of these libraries often reflects this growing democracy of service, and the buildings in a number of instances have become definite parts of civic schemes instead of existing in a remote and superior manner and acknowledging no æsthetic obligation or kinship to their neighbors.

Architects and building committees are beginning to realize a few of the possibilities in harmonious civic planning and are developing something like unity and coherence instead of the chaotic conglomeration of styles and periods represented in many of our cities, from Fifth Avenue to Main Street. A library is now most frequently designed with reference to a whole community center, as in Pasadena, where a beautiful new structure will form a unit in a group of public buildings planned and com-

missioned at the same time. The example of intelligently coordinating architectural groups, large and small, is having its gratifying influence. At Rancho Santa Fe, Calif., for instance, an entire town is being built on an old Spanish estate which was once the 9000-acre cattle range of a famous soldier of fortune. The owner built his adobe manor house on a sumptuous scale, and the building still stands in the shelter of magnificent pepper trees. It has been decided to preserve the old ranch house and all the relics of the past and to erect new structures that will accord with the setting and traditions. Some 400 domestic designs will be developed in the Spanish Colonial type of architecture, and also shops, offices, school buildings and a civic auditorium.

Spanish architecture of impressive design distinguishes the Scientific Library of San Diego, and the interior carries on and elaborates in unique detail the general structural character and feeling. The library is a part of the California Building which was designed by Bertram G. Goodhue for the San Diego Exposition. It has recently been utilized as a library center in one of the most harmonious park groups in the country. Instead of building cheap, temporary exposition structures and then wastefully



Photos. Herbert R. Fitch

Main Hall, Scientific Library, San Diego  
Bertram G. Goodhue, Architect



Main Entrance

"scrapping" them, San Diego was far-sighted enough to recognize the opportunity for evolving a distinctive civic group in Balboa Park; and the result is a delightful model with valuable suggestions for community builders anywhere. The permanent exposition buildings have been adapted gradually to various civic functions, and a new art gallery has been constructed recently to harmonize with the group.

The Scientific Library is conveniently located at the west end of the Plaza, next door to the Museum of the American Indian. Its main facade is rich with ornament typical of the Spanish Renaissance. Sculptured figures from Spanish-American history fill niches above and on either side of the main entrance, and a pleasing window and balcony arrangement occupies the center of the facade above the arched doorway. At the right of the entrance rises a massive tower that is topped with colored tile mosaic, and on either side are restful wall areas, soft and mellow in texture. The building as a whole affords an admirable illustration of the architectural value of simple austerity of plain walls relieved by concentrated ornament in dome or facade or by richly encrusted arches. Deep walls in rough plaster finish give a delightful sense of seclusion inside, and the treatment of ceilings and balconies is gracious and dignified. Striking interior features are the great carved monuments from Quirigua, suggesting in graphic detail the Mexican spirit which has in-



Carved Monuments from Quirigua, Scientific Library, San Diego

Bertram C. Goodhue, Architect



fluenced the architecture and which represents what is perhaps the most significant scientific interest of this southwestern country. Geographically and sympathetically, San Diego is close to the ancient civilizations of Mexico and Central America, and the Scientific Library suggests the rich and barbaric atmosphere of the Spanish-Indian cities in a unique and dignified manner. The grotesque monoliths are so placed that they enter harmoniously into the architectural design. They carry the eye up to carved balcony friezes, emphasize the solidity of an austere column, or else mark the center of a curving alcove.

In the main lobby of the library are beautiful mural paintings by Carlos Viera, representing the ancient Maya cities of Mexico, Guatemala and Honduras. These are satisfying decorative panels, and they are scientifically accurate. They have the tawny yellows, the enchanting pinks and blues of the actual ruins. The Jean Beman Smith frieze portrays the life of the ancient peoples of Central America, and there is a replica of the frieze of American discovery and conquest by Sally James Farnum, the bronze original of which is in Washington.

The interior furnishings and decorations are distinctly in keeping with the atmosphere and purpose of the building, and the structure as a whole represents an unusual blending of the appeal of science and of art. Maya paintings by Henry Louvins in bright blue, red and yellow form brilliant panels of



Main Hall from Balcony



Botanical Building and Garden, Scientific Library, San Diego  
Bertram G. Goodhue, Architect

color on the gray walls and are singularly at home in the unusual setting. These designs represent actual primitive motifs and are developed in characteristic color and form. The central open space, under the dome and enclosed by massive pillars, is devoted to reading tables, magazine racks and catalog files. Back of this central area are book stacks and reading alcoves. In the balconies are books and various art exhibits, including those of ceramics, tapestries and casts. Gorgeous Chinese vases and majolica ware, brasses and other colorful displays are appropriately placed in the long gray alcoves. Mural paintings are set effectively into the plain wall spaces below the upper windows and above the carved balcony balustrades. Beamed ceilings, as well as carved doors and pilaster ornaments carry on the Spanish-Mexican feeling of the impressive facade.

In addition to its advantages of felicitous housing,

the Scientific Library enjoys a most ideal landscape and architectural setting. Just around the corner are a botanical building and conservatory, banked with tropical flowers and shrubbery and reflected in magnificent lily pools. Lofty arches connect the library with secluded winding driveways bordered with flowering shrubbery and slender columns of eucalyptus. Across the street from the library is the "Science of Man" Building, closely affiliated with the Scientific Library in its exhibits and lecture courses. Beyond this building is the Natural History Museum with its richly encrusted ornament and sweeping arcades. To the east of the library is the great paved Plaza de Panama, surrounded by other picturesque structures of Spanish and Mexican types. South of the Plaza are the beautiful "cascades," and a sloping, flower-set lawn flanked by buildings used as a music center, and a branch library.



Cabrillo Bridge, Connecting Botanical Gardens and Scientific Library, San Diego

Bertram G. Goodhue, Architect

# The Forum Studies of European Precedents

## VILLA CURONIA, FLORENCE

Text by EDWIN SHERRILL DODGE, Architect of Restorations



AS far as is known, the Villa Curonia belonged to the Taddei family in the fourteenth century. In 1905, the then kitchen court was discovered to contain a beautiful courtyard of about 1450, with columns in two stories in the best Brunelleschi manner. During the process of restoring this courtyard I discovered evidences of earlier work on the same foundations, so there was probably a villa on the same site as early as the middle of the fourteenth century. On the town house of the Taddei family in Florence is a tablet stating that Raphael was a frequent visitor to the family in that house, and it is therefore entirely probable that he spent considerable time at the villa.

In a facade of the sixteenth century is a curious and unique curved wall, which I have always attributed to Raphael himself, but I have to admit that this attribution has been scouted by antiquarians. It is, however, very much in his manner, and I see no reason why he should not, during one of his visits, have sketched these curves which have a balance and swing which seem to me peculiarly his. During the siege of Florence, in 1525 I think, the besiegers took possession of the villa, owing to its commanding position, and from there bombarded Florence. There are still evidences of the counter-attacks of the Florentine defenders. During the seventeenth and the two following centuries, little is known about the villa, although there are evidences of work having been done, as it contains a chapel of the late seventeenth century with a Rococo plaster ceiling. The villa was bought by me in 1905 from a Russian, Baron de Nolda, who had owned it since 1800. He had changed the name to "Villa Curonia,"—Curonia being the Italian for his native Baltic province of Kurland.

Owing to the legend of Raphael in connection with the villa, I had the walls of the important rooms examined by experts for traces of possible frescoes, which that master might presumably have executed, during some of his many visits, but nothing of importance was ever found. The rooms on the ground floor are all vaulted and are about 15 feet high. The second floor has a stud of about 12 feet. Of course the scale of the rooms is enormous.







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Photos, Paul J. Weber

**TERRACE, VILLA CURONIA**

*The Forum Studies of European Precedents; Plate 90*

THE ARCHITECTURAL FORUM  
August, 1927

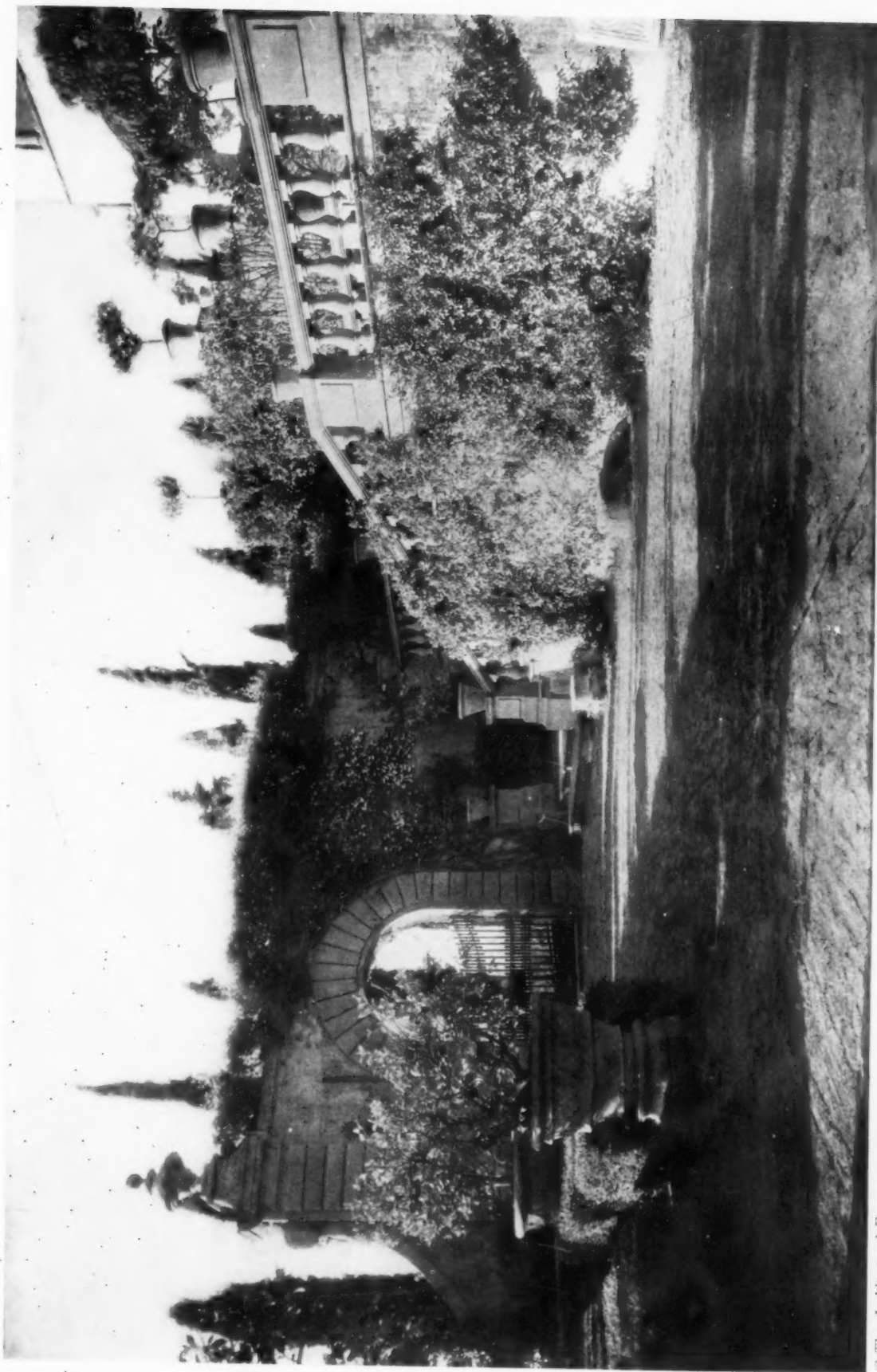






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SERVICE END, VILLA CURONIA  
*The Forum Studies of European Precedents, Plate 91*

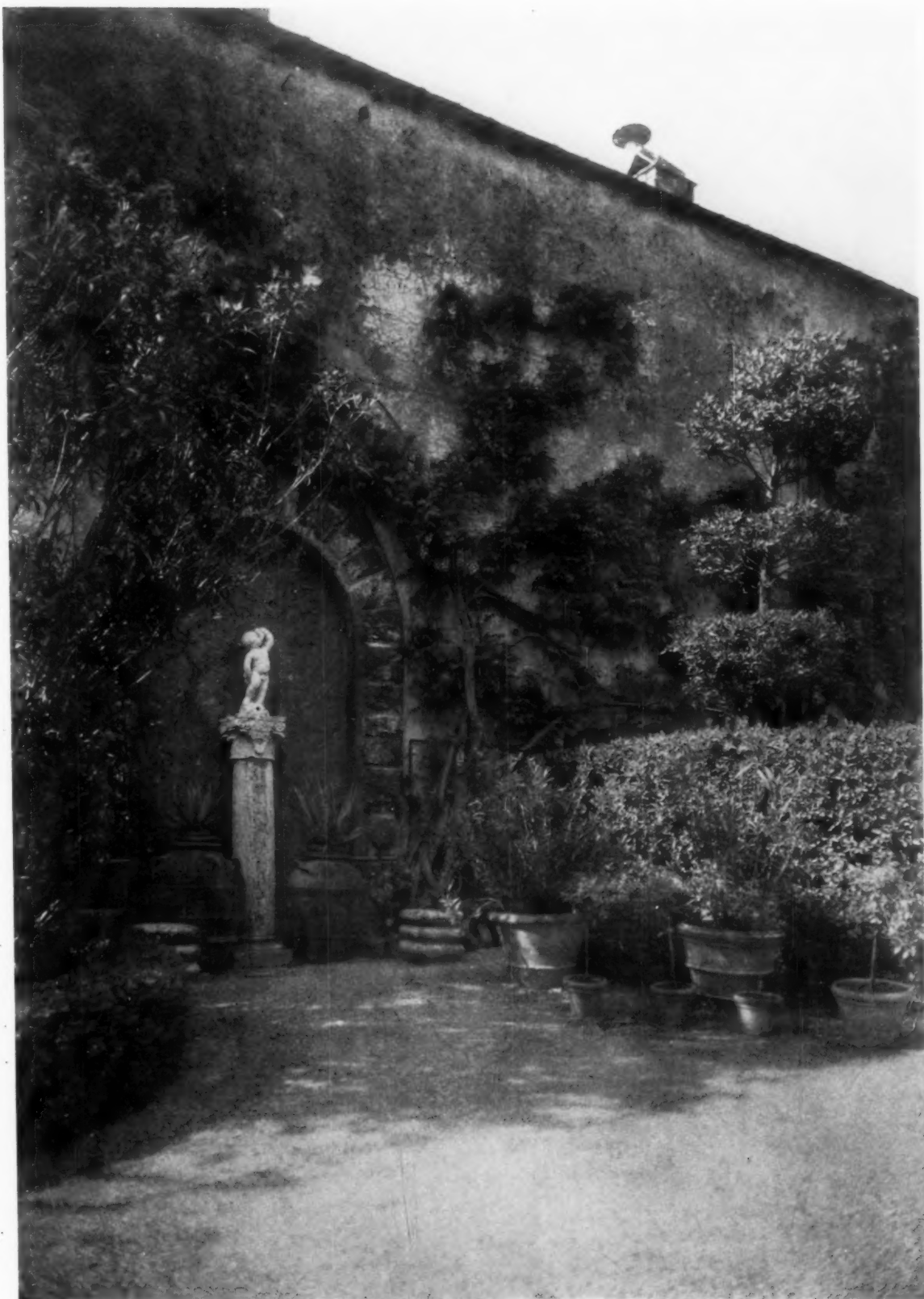




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 DRAWING ROOM TERRACE, VILLA CURONIA  
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GARDEN WALK, VILLA CURONIA

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FORECOURT, VILLA CURONIA

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DRAWING ROOM WINDOW, VILLA CURONIA

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FORMAL GARDEN, VILLA CURONIA

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## Cheltenham High School, Elkins Park, Pa.

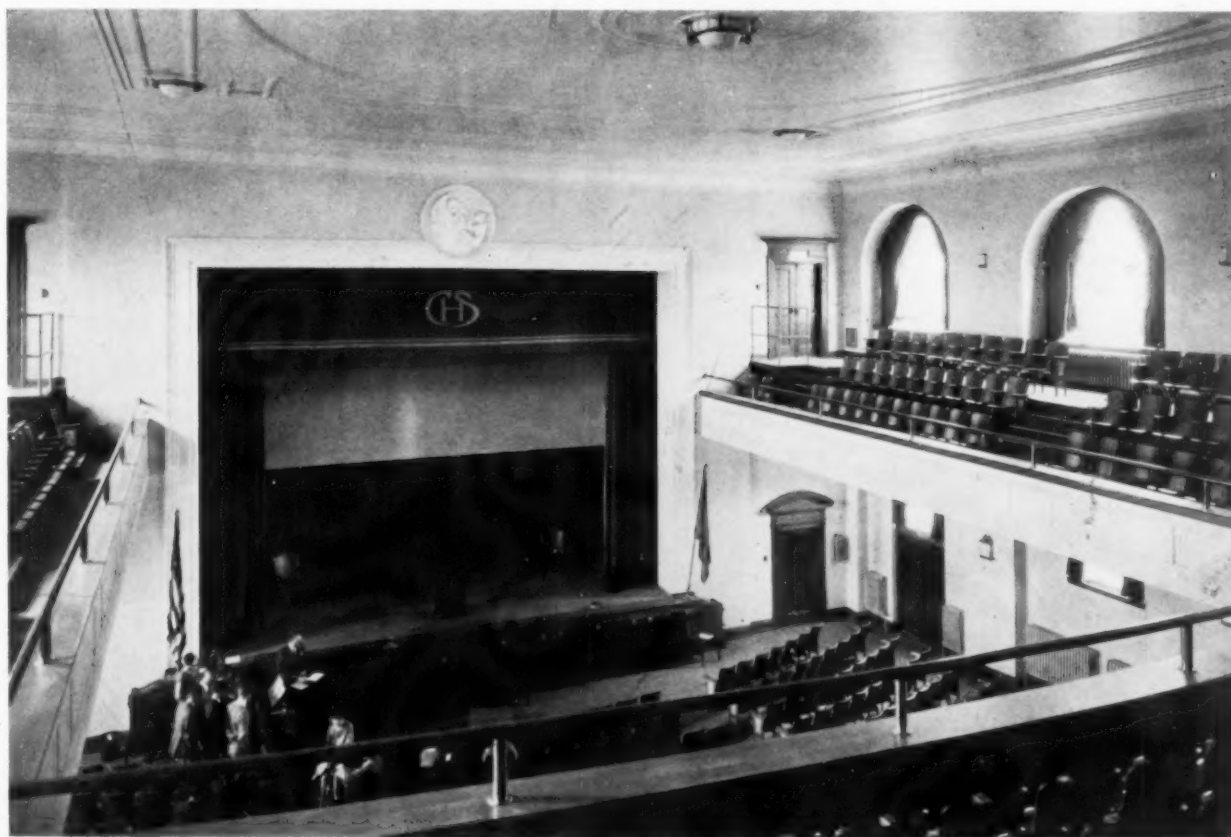
DAVIS, DUNLAP & BARNEY, Architects

THE Cheltenham High School, at Elkins Park, in Cheltenham Township, Pa., is one of the most recent as well as one of the most successful public school structures built in the neighborhood of Philadelphia. This school has been so planned that, when the building program is ultimately completed, it will be H-shaped, the principal frontage being on one of the uprights of the H. That part of the building already finished, and opened for occupancy in January last, is the northeastern leg of the H. As the growing needs of the township require it, the remaining portions of the school structure will be erected in the manner provided for in the comprehensive scheme. As a matter of fact, although the part of the building now in use is adequate to meet the present actual needs, an additional unit is now under construction. This will provide more classrooms and likewise more ample space for the teaching of "domestic science" and other branches.

The building as it now stands furnishes accommodation for 1,000 pupils. In addition to the usual classroom accommodations, there are offices for the superintendent of the school district and his assistants; offices for the principal and his secretary; a large auditorium capable of seating over 1,000; a library; a music room where the school orchestra,

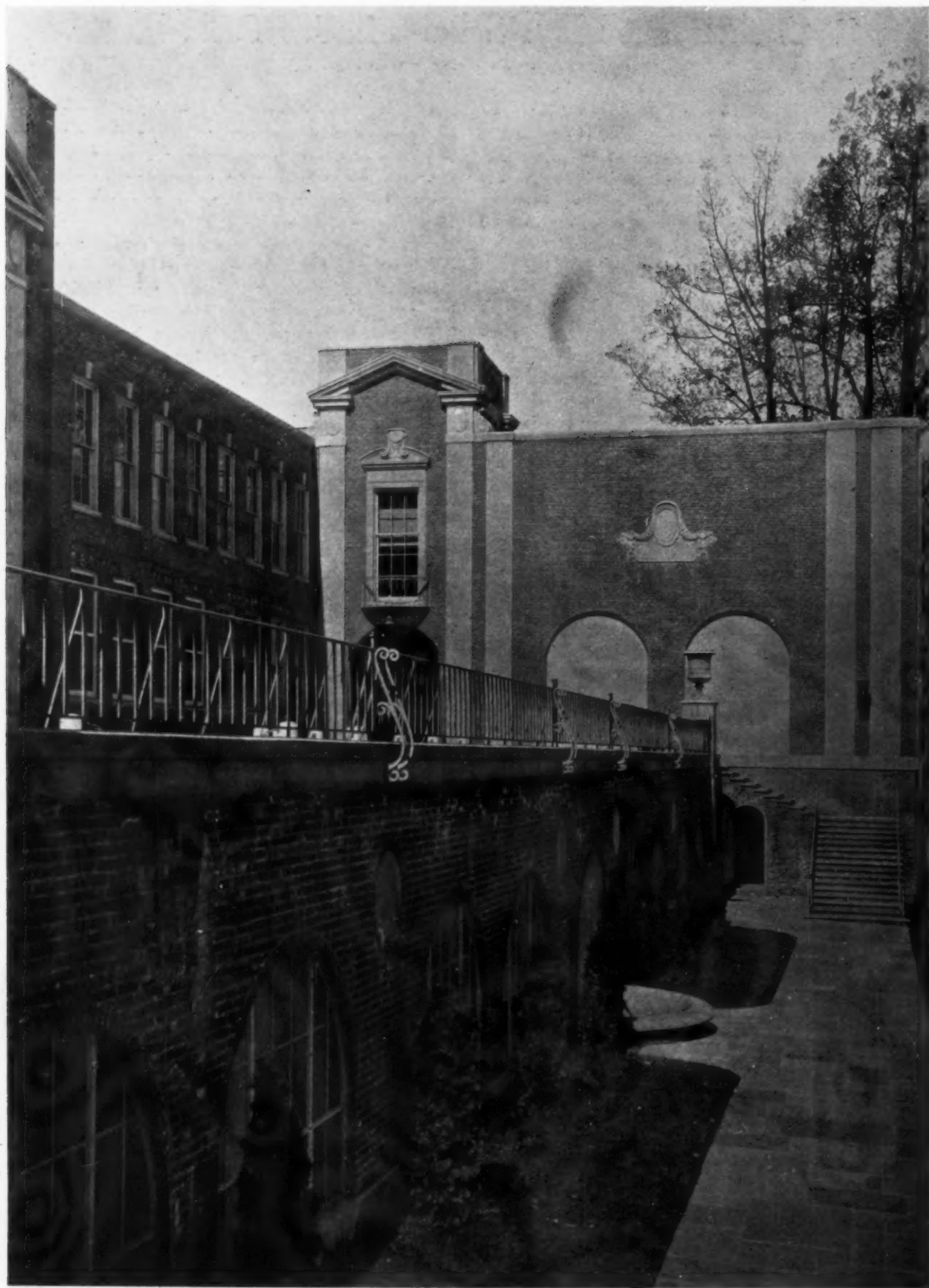
the school band, the glee club and other musical organizations hold their rehearsals, and where some musical instruction is given; an art room, in which drawing and water color lessons are given; rest rooms for men and women teachers; a common faculty room, in which the teachers' luncheon is served; and completely equipped chemistry, physics and biology laboratories. Every need is provided for.

The school building stands on a steep hillside sloping abruptly away from the long northeastern front. This renders it possible to have a large, airy, well lighted basement with windows overlooking the slope. In this basement, underneath the flag-paved terrace along the northeastern front, are the boys' and girls' gymnasiums. In connection with each gymnasium and convenient of access from the halls of the main floor above are spacious and well ventilated locker rooms with toilets and shower baths adjoining. Connected with each gymnasium likewise are offices for the physical directors, and "corrective" rooms with the necessary appointments for physical examinations and special apparatus for the treatment and correction of physical defects. In the offices there is filing space for card indices containing the physical records of all pupils in attendance at the school. The boys' gymnasium, where basket

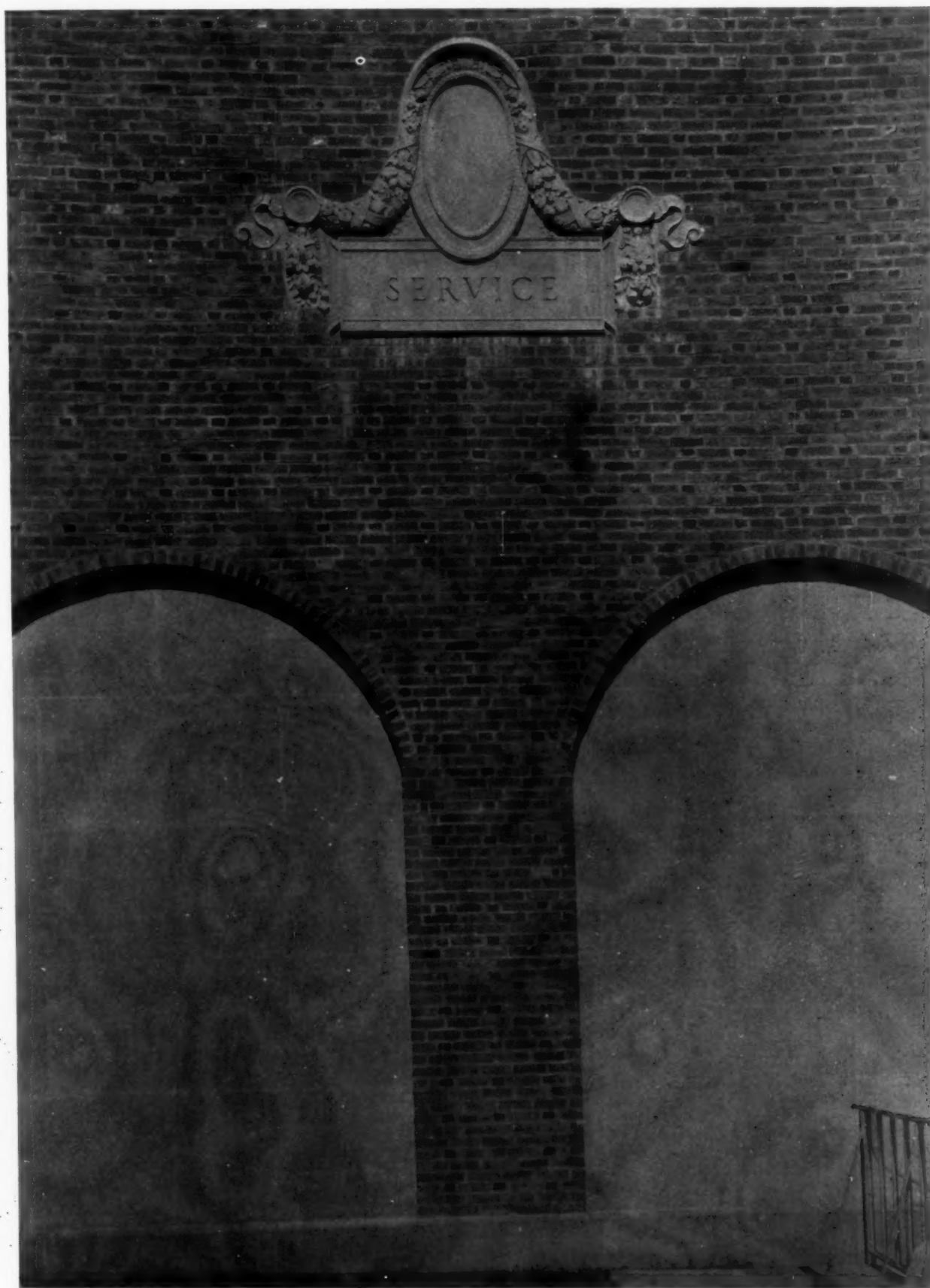


Auditorium, Cheltenham High School, Elkins Park, Pa.

Davis, Dunlap & Barney, Architects



LOWER TERRACE, NORTHEAST FRONT  
CHELTENHAM HIGH SCHOOL, ELKINS PARK, PA.  
DAVIS, DUNLAP & BARNEY, ARCHITECTS



DETAIL OF CARVING AND BRICKWORK  
CHELTENHAM HIGH SCHOOL, ELKINS PARK, PA.  
DAVIS, DUNLAP & BARNEY, ARCHITECTS



ball games are played, has a gallery with a seating capacity of 350. The basement also contains a large and completely appointed kitchen with a cold storage and refrigerating plant of the most approved sort. Immediately adjoining the kitchen is the cafeteria, directly conducted by the school authorities, where the pupils can get a well cooked hot luncheon at barely more than actual cost. The diet is properly varied and under careful supervision. From the kitchen a dumbwaiter connects with the faculty room above, so that luncheon for the teachers can readily be sent up to them. The remainder of the basement area is given over to the heating and ventilating plants. The heating is automatically controlled, so that an even temperature can be maintained throughout the entire building. There is also an emergency lighting system to be used in event of there being any temporary stoppage of the outside lighting current. Over and above the provisions already mentioned, on the upper floor there are a doctor's office for the school's medical superintendent; a nurse's room connected with the rest rooms, and equipped with every conceivable requisite for emergencies; and a fully appointed dentist's office, where not only can the pupils' teeth be thoroughly examined but

where also any kind of dental work can be performed when occasion calls for it in school administration.

In the extension now being built there will be a thoroughly equipped food laboratory where instructions will be given in cooking, balanced diets and the scientific management of foods; a "clothing laboratory," where sewing and clothes making will be taught; and a model apartment consisting of living room, dining room, bedroom, bath, kitchenette and laundry, which will serve as a basis for instruction in furnishing and housekeeping. The offices of the superintendent and of the principal are on the main floor, near the center of the structure; the central hallways are wide enough to insure ease and rapidity of circulation and to give room for the pupils' coat and hat lockers, in such places as they occur; the typewriter rooms of the commercial department are on the upper floor of one of the projecting wings, over the drawing or art room, so that the noise of the typewriters cannot disturb classes in the body of the building; the music room

is on the ground floor of the corresponding wing and separated from the rest of the structure by an open archway so that neither rehearsals nor singing lessons can annoy classes in session; and the laboratories are in the uppermost central block of the structure over the main entrance, placed there probably in order to secure proper ventilation for them.

The walls of the school are built of brick with cut limestone trimmings. The faces of the walls display a bond consisting of two courses of stretchers to one course of alternating stretchers and headers, the headers being a dark purplish brown in contrast

with the orange salmon of the stretchers. The windows have limestone sills, limestone keystones, and metal sashes and casings painted cream. Except for the driveway of pebbles and small stones embedded in asphalt, the main terrace between the wings and before the principal front of the building is paved with rough bluestone flagging.

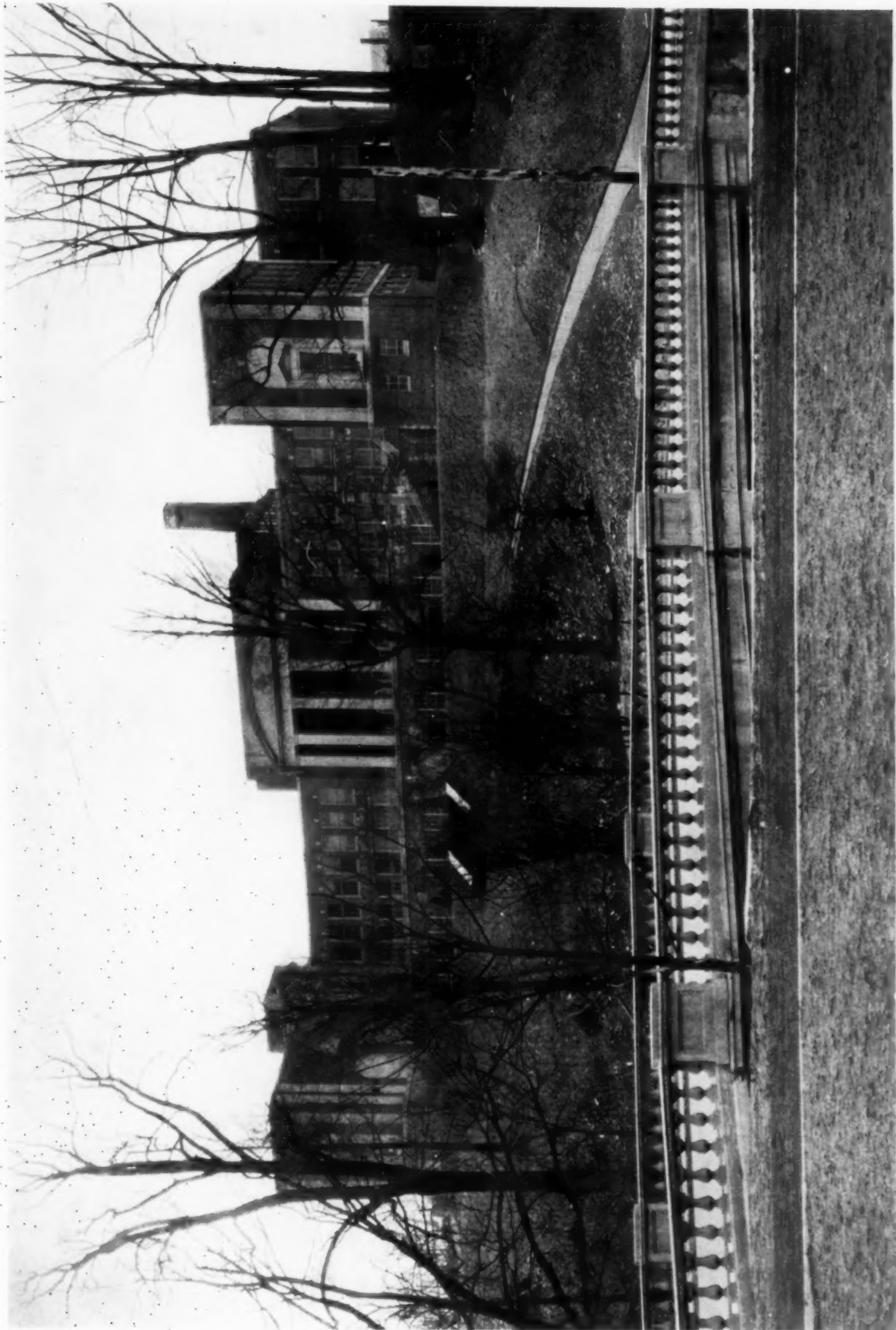
With the exception of the interior partitions, the inner construction of the building is altogether of reinforced concrete; the partitions are built of terra cotta tile. The stairs are of steel construction with slate treads and cast iron risers; the balustrades are of wrought iron with wooden handrails. All the floors in the class-

rooms are of wood laid over concrete slabs. In the lobby and halls the floors are of terrazzo, in a pattern of black and white chequers at the entrance, but of one color elsewhere throughout the entire building, thus giving the rooms a certain desirable uniformity.

In the case of the Cheltenham High School the architects have not only successfully surmounted the usual difficulties by keeping the building from looking like a factory but they have also reached a very positive achievement. While making a virtue of necessity, they have given to the structure great interest and distinction. In this connection, it is worth noting that the two tower-like drums, rising above the roof directly over the arched passageways giving access to the great upper terrace, not only contribute materially to the advantage of the composition but also house the ventilating fans that pump out the exhausted air. In the same way, the attic story over the main entrance, which is vital to the composition, accommodates the laboratories which have ample window provision on the sides away from the front.



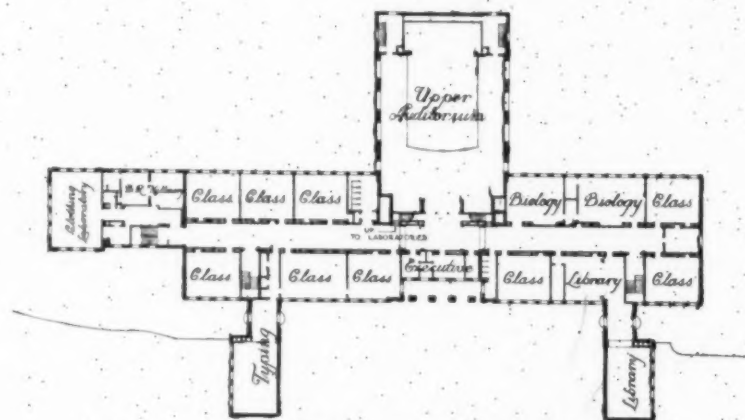
Urn and Pedestal, Cheltenham High School  
Davis, Dunlap & Barney, Architects



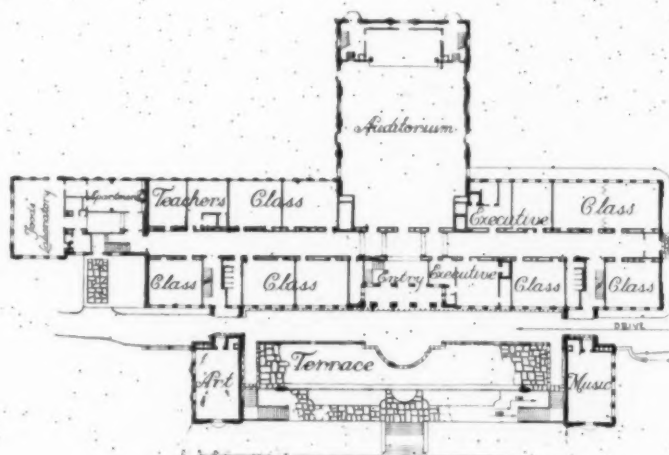
Plans on Back

CHELTENHAM HIGH SCHOOL, ELKINS PARK, PA.  
DAVIS, DUNLAP, & BARNEY, ARCHITECTS

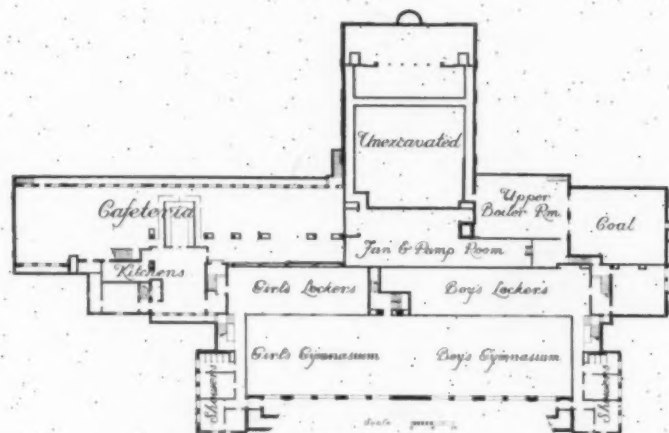
Photos, H. D. Eberlein



SECOND FLOOR



FIRST FLOOR



GROUND FLOOR

PLANS, CHELTENHAM HIGH SCHOOL, ELKINS PARK, PA.

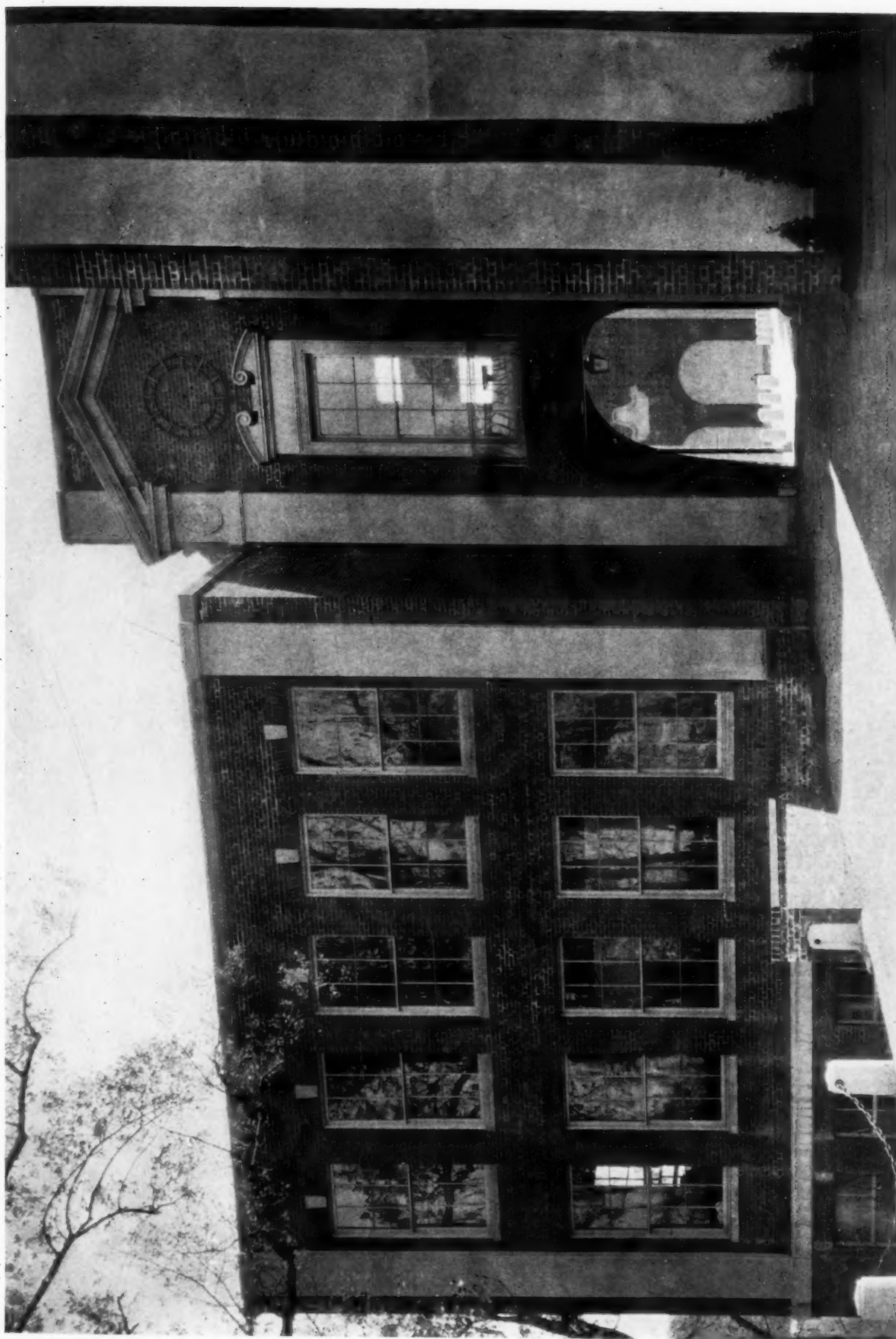
DAVIS, DUNLAP & BARNEY, ARCHITECTS





NORTHEASTERN FRONT AND TERRACE  
CHELTENHAM HIGH SCHOOL, ELKINS PARK, PA.  
DAVIS, DUNLAP & BARNEY, ARCHITECTS





WEST SIDE, NORTH WING  
CHELTENHAM HIGH SCHOOL, ELKINS PARK, PA.  
DAVIS, DUNLAP & BARNEY, ARCHITECTS



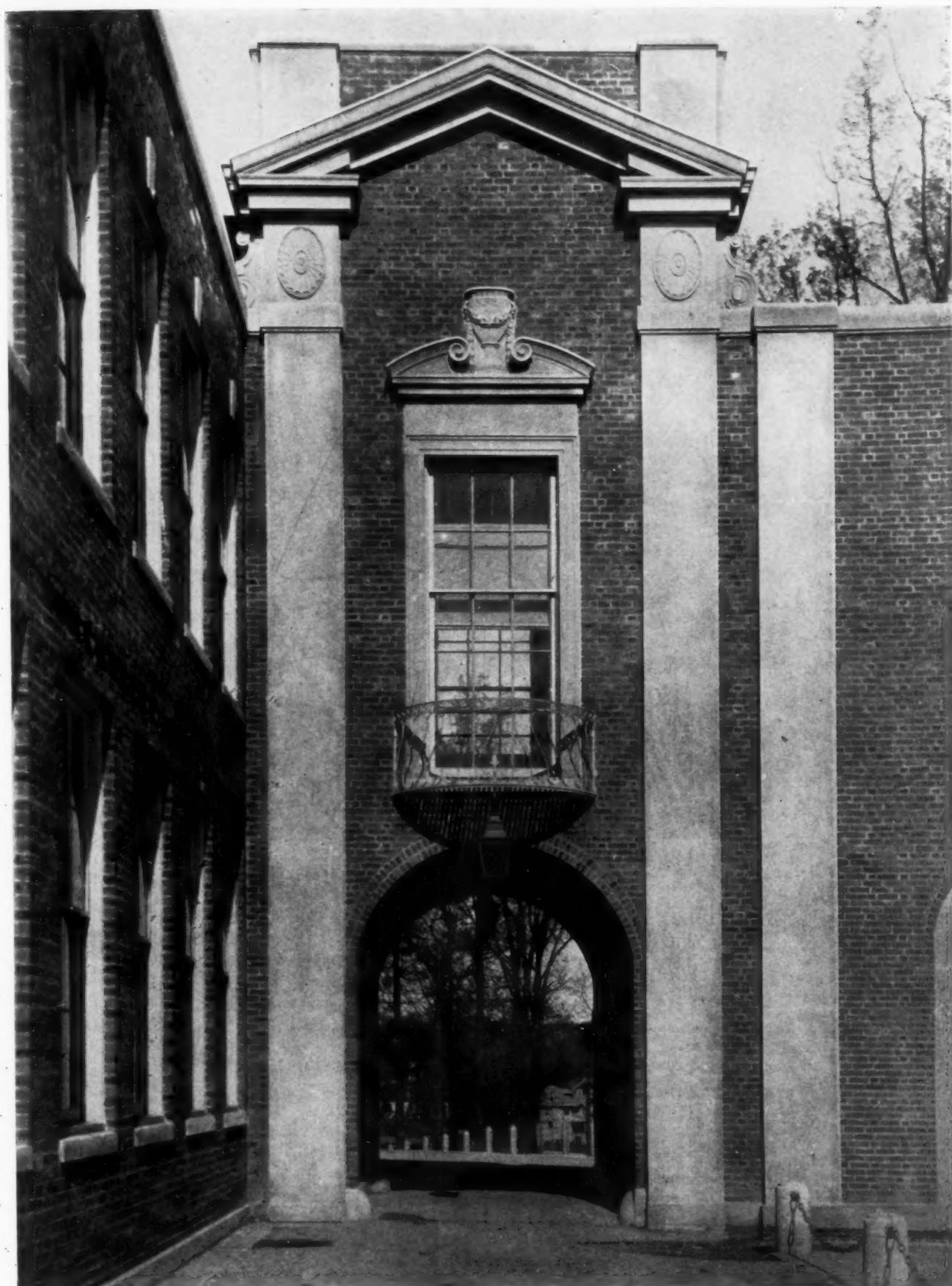




END OF NORTH WING  
CHELTENHAM HIGH SCHOOL, ELKINS PARK, PA.  
DAVIS, DUNLAP & BARNEY, ARCHITECTS







ARCHWAY, NORTH WING  
CHELTENHAM HIGH SCHOOL, ELKINS PARK, PA.  
DAVIS, DUNLAP & BARNEY, ARCHITECTS

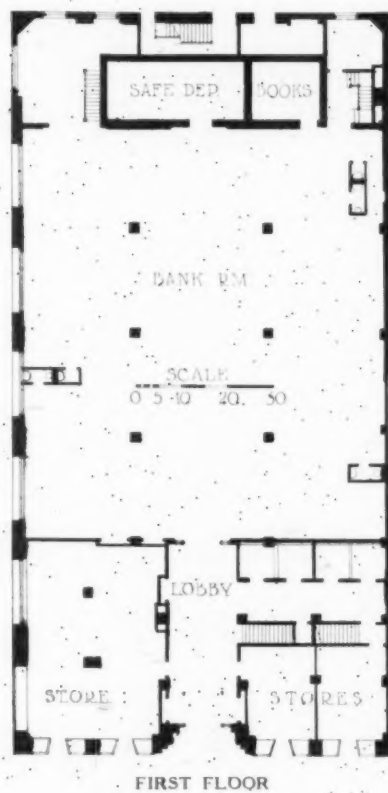




ERIE TRUST COMPANY, ERIE, PA.  
DENNISON & HIRONS, ARCHITECTS

*Plan on Back*





PLAN, ERIE TRUST CO., ERIE, PA.

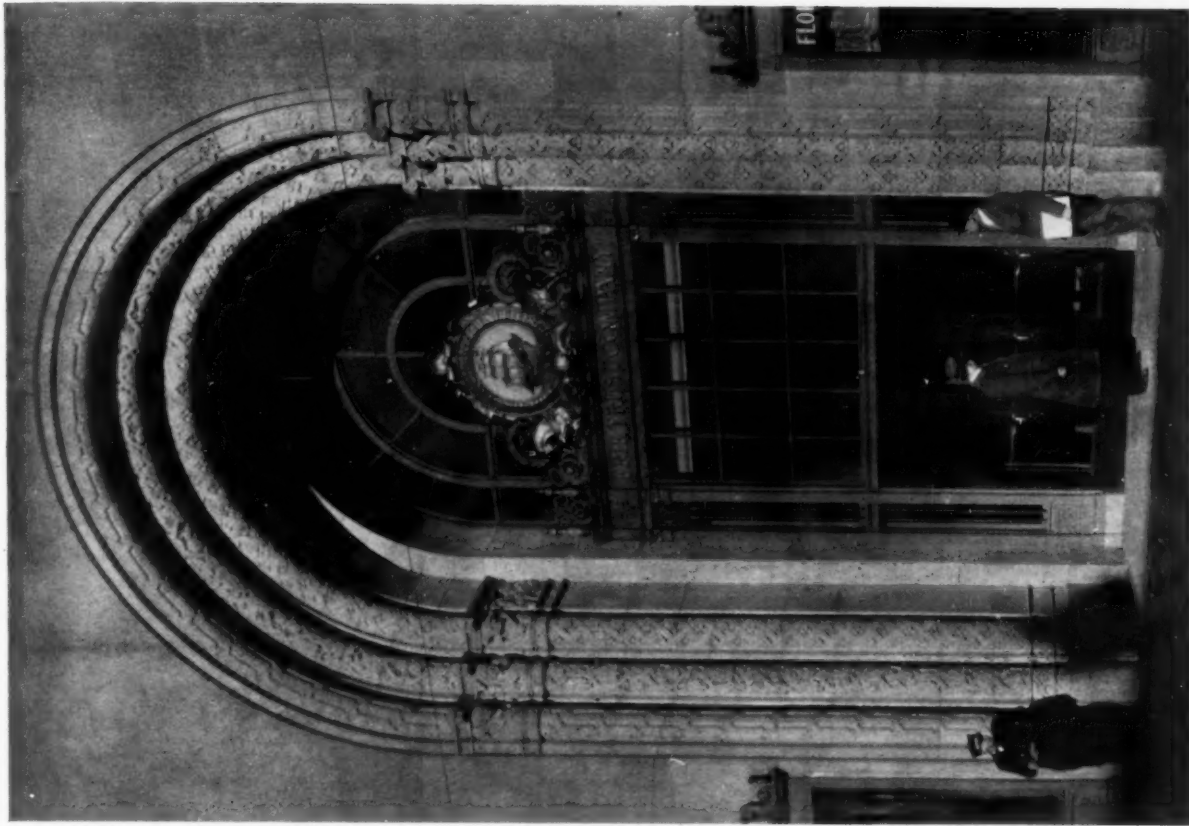
DENNISON & HIRONS, ARCHITECTS



BANKING ROOM  
ERIE TRUST COMPANY, ERIE, PA.  
DENNISON & HIRONS, ARCHITECTS

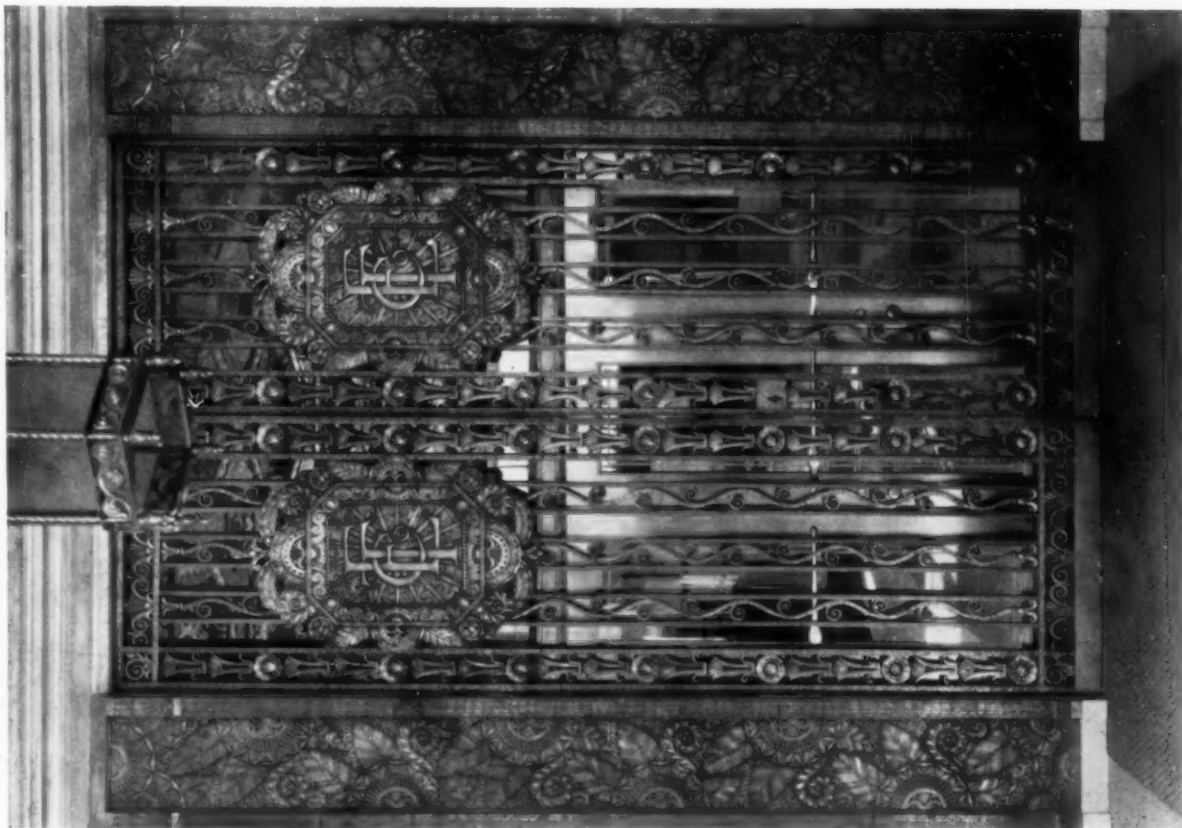






MAIN ENTRANCE

ERIE TRUST COMPANY, ERIE, PA.  
DENNISON & HIRONS, ARCHITECTS



A DOORWAY



## Some Impressions of Mexico; Part II

By WILLIAM P. SPRATLING

*Illustrated with Sketches by the Author*

MEXICO, the city, is in some ways very elegant. There is the beautiful *Paseo de la Reforma*, which was laid out by Maximilian as a sort of *Champs Elysees*, and the *Avenida Francisco Madero*, which rivals our Fifth Avenue and possesses the advantage of having the *Casa de Azulejos* and good saloons! At the end of it there is the centralized and splendid *Plaza de la Constitución*, flanked on the four long sides by the cathedral, the *Palacio Nacional*, the *Palacio Municipal*, and with one side of the plaza continuously arcaded forming the *Portales*. The flower market and the thieves' market are there, and, housed in a palace, the *Monte de Piedad*, the national pawn shop. It is a wonderful city, full of strange contrasts, and the capital of a country where almost anything can (and usually does) happen. Adjoining the cathedral is an early and almost severely classic structure, the *Sagrario Metropolitano*, almost pagan in its wealth and joyous abandon of Churrigueresque detail. It is undoubtedly the finest thing of this sort in the New World. Each of the two sides presents a centerpiece which from top to bottom is like a piece of rare lace. The wall area on either side is *tezontle*, a volcanic stone, very coarsely textured, and ranging in color from a deep brownish pink to maroon and magenta. Two richly carved doorways at either side are extremely good, and the pilastered corners have many breaks. From the fountain at the far corner, looking back and up, the repeated curves and gorgeously cut line of the top of the wall, with the low dome for a background and rising back of that the towers of the cathedral, seem to express the spirit of the thing.

It is hard to realize that the men who devoted themselves to the building of these things were more or less pioneers and, though they must have sensed strongly the feeling of the design they were about, that after all they were really a grim and rather uncompromising race of God-fearing men. This will be felt even more decidedly in the buildings that were erected in the hills and away from the veneer of modern clothing and candy shop fronts that is likely to obscure such things. Frequently these people built magnificently. There is a sense of grandeur in some of the old palaces of Mexico City. The "House of the Cannons," which was built by Altamirano, a cousin of Cortez, splendid as it is, is not even a unique example. It has a wealth of detail about the entrance, with carved wood doors worthy of being in the national museum, and a cornerstone said to have been laid by the hands of Cortez himself, which is a monolithic "Plumed Serpent" taken from the old Aztec Temple of the Sun, which once stood in the *Plaza Mayor*. That would indicate that the house was built within the first quarter of the sixteenth century. The cannons for gar-

goyles still shed water effectively. This house is matched in splendor by one of very similar type, but of even richer and almost Louis XV detail, which is in the *Avenida del Isabel la Católica*. The material here is the same, a very soft toned pink *tezontle* in square blocks with a sort of limestone trim. The detail of the center feature with its rich leafwork, heavy bronze rail and, above, the carved stone gargoyles suggesting in shape and design the Aztec, combines in a very satisfying manner with the broad, roughly textured pink and red surfaces. These two houses are rather magnificent in their way, but as a matter of fact the same type is to be found in many examples presenting less pretentious effects.

The Hotel Iturbide, once the palace of the prince of that name, who later made himself emperor, is a remarkably fine structure. The detail here is more conservative, but the scale is greater, and the effect of dignity in an entrance with hung doors of paneled cypress that are from 5 to 6 inches thick and that must be something over 22 feet high is tremendous. This effect of space is heightened by the vista through three successive patios. It is a five-story building and in plan very extensive, with four great courts radiating from a central court. The treatment of the galleries of the interior court consists of beautifully moulded light elliptical arches and well balanced detail. The *Casa de Azulejos* (House of Tiles), is another building that could never be equaled on this continent and probably not in Europe for its type. In this fine structure Puebla tiles on exterior wall surfaces have been harmoniously and charmingly combined with the body of the building in stone and carving done in the Plateresque. At the same time, and particularly in the patio, the *Casa de Azulejos* reveals distinct traces of the Mudejar.

One of the first things that happened to me in Mexico was that Regadas Vertiz sent me to see the *Santisima Trinidad*. As has been noted, churches in Mexico, as shrines for architectural study, are almost numberless. The *Santisima* is the church generally regarded as the best example of the Churrigueresque after the *Sagrario Metropolitano*, and while the interior, as is frequently the case in Mexico, is a disappointment (due to certain revolutions of taste and the attempted grafting on of Italian ideas), the body of the exterior atones for the defect.

It is rather difficult to write of the country itself without launching into rhapsodical descriptions, and second-hand enthusiasms are not always convincing. One distinct advantage that Mexico as a capital enjoys is the fact that, once there, one finds in and around the valley of Mexico, within a radius of 25 miles or so, a large share of the most important and most absorbing of the colonial architecture. Even Puebla, which is probably the second city of the re-





THE SANTÍSIMA TRINIDAD, MEXICO



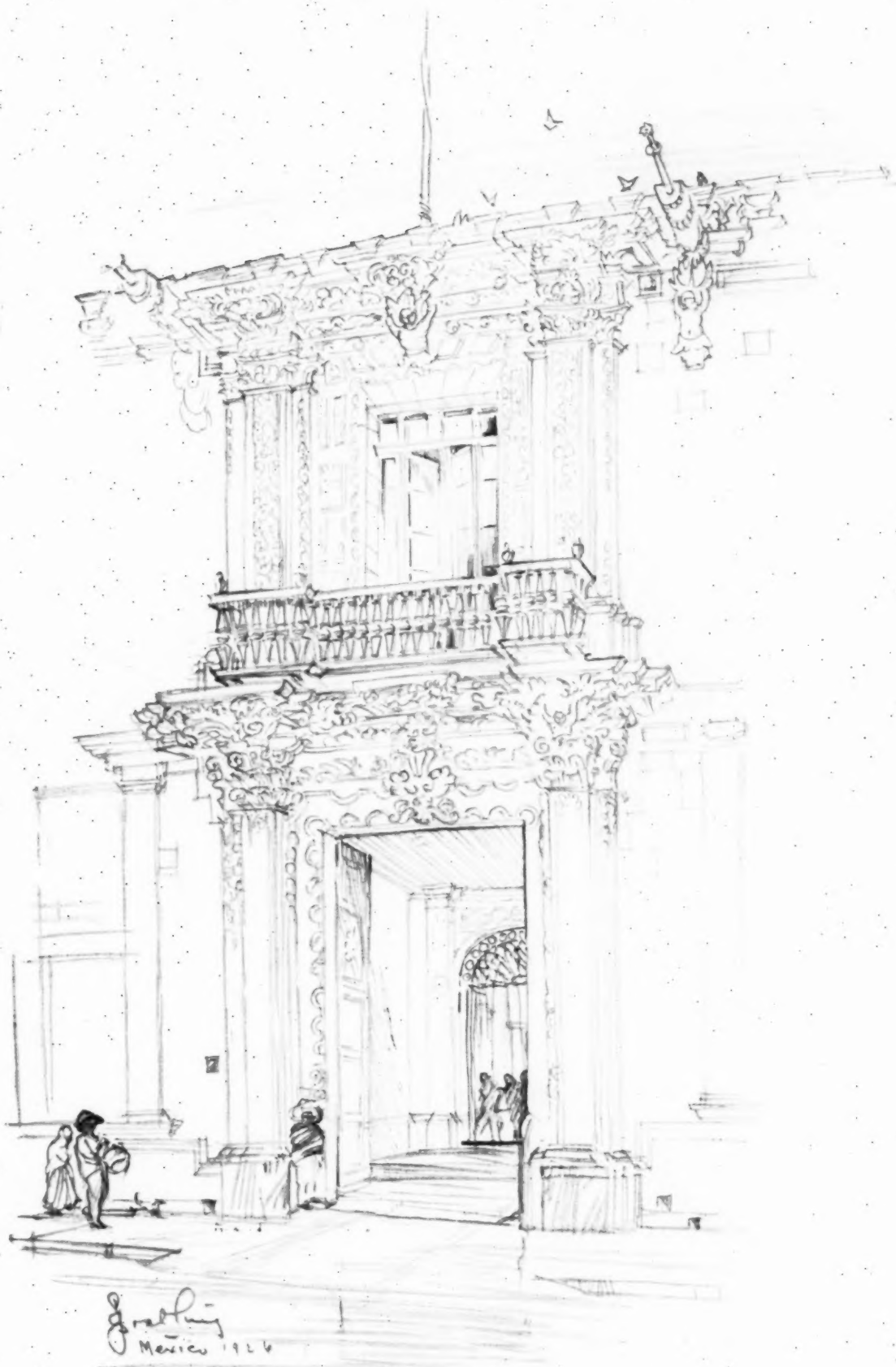
CATHEDRAL, PUEBLA; CHAPELS AT APSIDAL END



HOUSE OF ALTAMARINO, MEXICO

Gardner  
Mexico 1926.





HOUSE ON THE AVENIDA DEL ISABEL LA CATOLICA, MEXICO



THE SHRINE, GUADALUPE



CATHEDRAL, VERA CRUZ

public, is within only four hours of Mexico by automobile. One can reach there comfortably, traveling in this manner, for about two dollars American; and the journey there is equally as breath-taking as that to Cuernavaca. At the highest point on the road, at an elevation of something over 12,000 feet, a small signboard tells the motorist that in one direction the waters drain to the Gulf of Mexico and in the other proceed to the Pacific Ocean. With the memory of that particular trip still freshly in mind, it is not easy to leave the idea. Our road skirted the two snow-clad volcanoes, Popocatepetl and Ixtaccihuatl, and in the clear morning atmosphere, with the white clouds far below us, the still pale smoke was plainly visible on the peak of "Popo." Gleaming snow on the heights showed long, blue, slightly mysterious shadows.

On the other side of the mountain, approaching Cholula, the Aztec pyramids were visible from a great distance. The greatest, somewhat larger than the Egyptian pyramids at Ghizeh, is crowned triumphantly with a Franciscan church in pink and white, which is not very pure in form. It was here in Cholula that Cortez fought his greatest battles on the march up from the coast. In early times it was a great center, very populous, and the Church of San Francisco, built to take care of the overflow from an earlier structure, was roofed with 16 or more domes. There seemed something remarkably chaste about this simple and curious basilica with its cool white spaces of interior, and each dome as a structure honestly confessing itself within and without.

Puebla is best seen on top and inside,—as I discovered from the top of one of the belfries of the cathedral. Up there one discovers oneself quite removed from the commonplaces of street life and lifted to a strange and intimate nearness with tea-cup domes and charming and fragmentary vistas of church-dotted countryside. The colors are lively, and the successive houses may be pink and green with perhaps a sky-blue stained arcaded patio. The nearest dome, which, in a way, fills one's vision, is of canary yellow and pale green tile,—rather small tiles, glistening so as to suggest the afore-mentioned tea-cup. The dome at the apsidal end is grace itself, and delicately ribbed domes of the subordinate chapels, with the typically Spanish characteristic of plenty of massive wall space, make a splendidly composed group when studied from almost any angle.

Coming out of the country and back by Vera Cruz, I brought much material,—not only in the portfolio of drawings, but principally in the form of a completely new set of ideas about the country. The trip down to the coast must be always amazing, no matter how many times repeated. The descent from 12,000 feet of altitude to sea level is accomplished in three downward climbs from the three particular plateaus, and it takes more than 12 hours. On precipitous heights villages suddenly appear some 2,000 feet or so below. The various stages of plant life develop at the different levels; the atmosphere becomes almost oppressive; tropical growth becomes so

luxuriant and rich as to almost seem to explode from the earth; and by the time Vera Cruz is reached it is difficult to realize that one is in the same country.

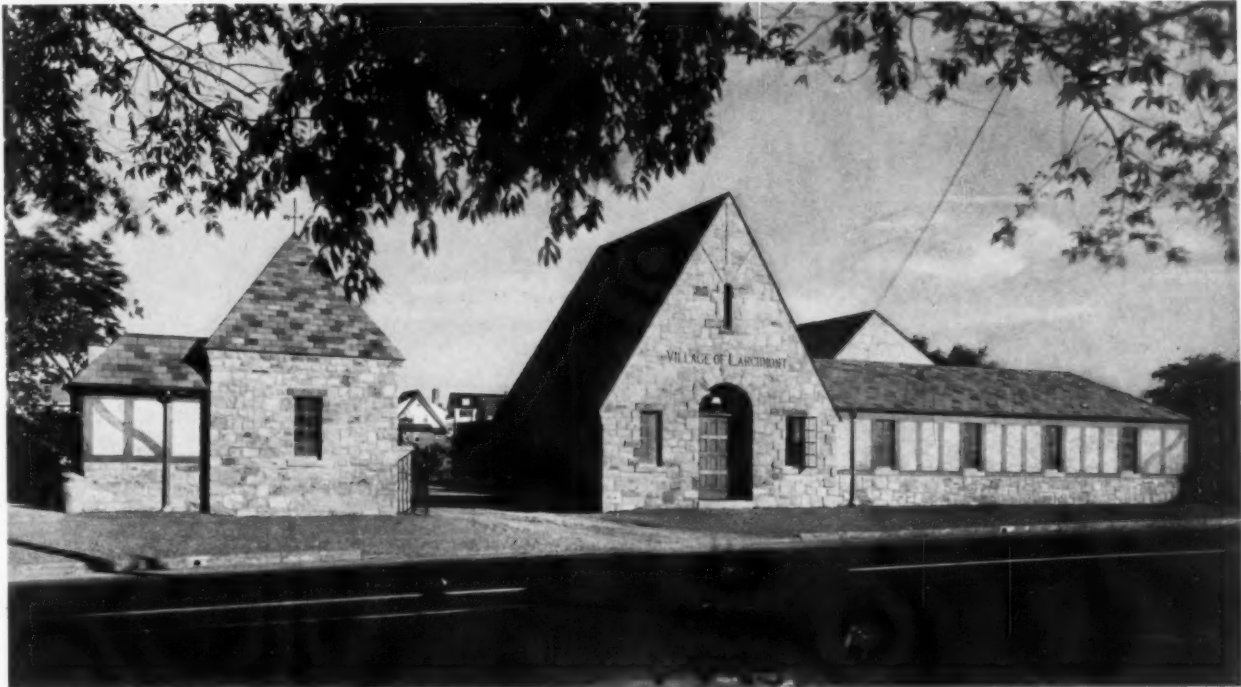
Architecturally, the finest thing in Vera Cruz is of course the cathedral. At 4:30 in the morning the effect was magnificent. At any rate, I lay and watched the dawn arrive. The cathedral flanked directly on the opposite side of the plaza, and the pale gray light revealed the pink and blue dome above tropical foliage as a luminous and lovely thing. A little later I got out drawing pad and pencil and made some more sketch notes to help fix the vision.

Mexico is a country in which, with its fourteen million Indians, more than two-thirds of the population has actually been unincorporated in and almost unrelated to the government,—that "minority of advanced civilization!" It occurred to me that few people can possibly realize the vast extent of the work of enfranchising these hundreds of tribes and of making them aware of their own nation. In doing this there is the delicate problem of preserving the things that are the Indians' own,—the customs and habits of living, the fiestas, half mystic beliefs, and all the accumulation of traditional matter, including the all-important "popular arts." The present government has demonstrated the strength of its intentions in regard to this solidification, and the results are already becoming concrete. The work of Manuel Gamio has been of inestimable value. There has been a definite sort of awakening in Mexico due to his influence in regard to these things that had been overlooked and neglected by political people for so many years. In his schools the beautiful arts of weaving, mat-making, *sarape*-making, lacquer work etc., have been revived and stimulated. He has also been identified with the work on the excavations at Teotihuacan, the establishment of the museum there, and the building of an open-air little theater that certainly rivals anything in the United States. It is a significant fact that the popular arts in Mexico have never been dead, and that even in the remote regions the people have always been making wonderful things with their hands, and also that in these remote parts are found gorgeous and intricately designed textiles made by the savage and absolutely untutored Indians. This is in spite of four centuries of oppression and of many devastating revolutions!

It all gave me the feeling that something was really happening to the country, that at last there was some movement toward a national consciousness, that the people there were discovering the beauty that was truly their own. The frescoes of Diego Rivera in the Ministry of Education reveal an amazingly vital expression of this consciousness. There was the work of the American, Frances Toor, and her magazine called *Mexican Folkways*,—which seemed to be getting at a lot of things that had been long neglected. Many other incidents, too numerous to mention, indicated a new feeling in the republic toward what is truly "Mexicana" and the spirit that must come with any renaissance within that country.



# SMALL BUILDINGS

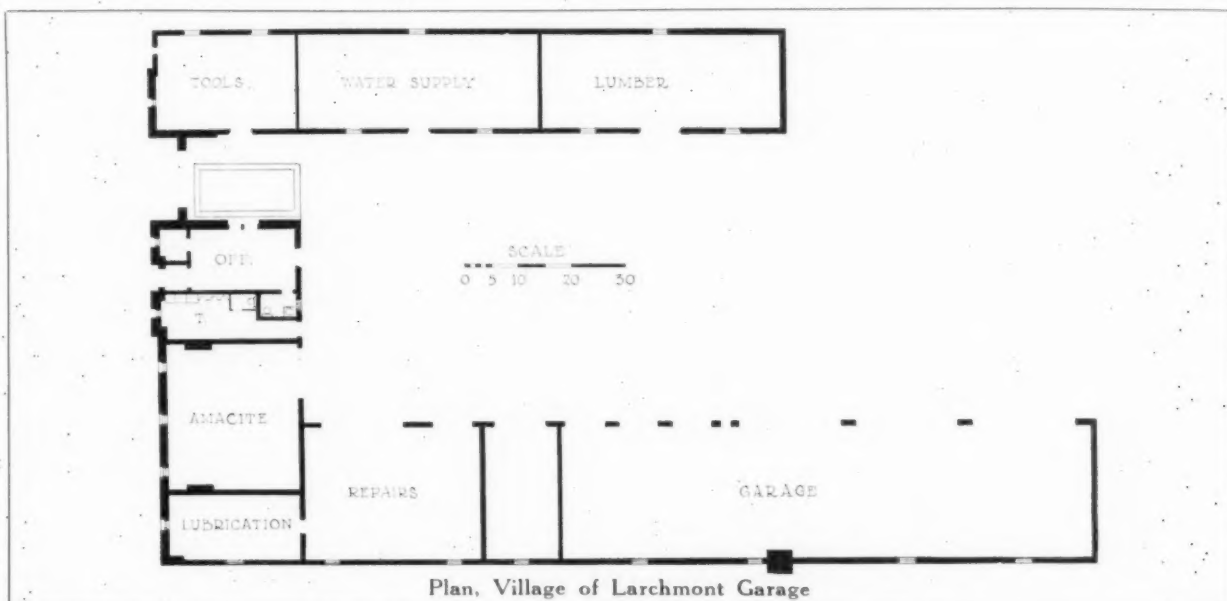


Photos, George H. Van Anda

VILLAGE OF LARCHMONT GARAGE  
W. KENNETH WATKINS, ARCHITECT

NOTHING is more encouraging to the architect than to discover a public building possessing the degree of originality and charm shown in this public service group of the Village of Larchmont. The color and quality of the stonework possess the proper rural character, suggesting in a way stone farm buildings in Normandy and Brittany. The use of irregular quoins for the windows and door of the principal building in the group indicates the unusual amount of care bestowed upon

the details of this public service building. The use of half-timber and stucco for the long one-story wings of the group is in pleasant contrast and harmony with the stonework. The 12-paneled entrance door with the metal grille above, set into a deeply recessed arch, is a carefully designed feature seldom found in a public building of such utilitarian purpose. The roofs are covered with variegated colored slates which blend well with the tone of the stonework. The plan is so designed that a future



## FORUM SPECIFICATION AND DATA SHEET—190

Village of Larchmont Garage  
W. Kenneth Watkins, Architect

## OUTLINE SPECIFICATIONS

## GENERAL TYPE OF CONSTRUCTION:

Masonry.

## EXTERIOR MATERIALS:

Front, stone, stucco, half-timber; sides, concrete.

## ROOF:

Pitched roofs, slate; flat roofs, slag.

## WINDOWS:

Steel-sash; wire glass, factory type.

## FLOORS:

Office, oak; garage and storage rooms, cement.

## HEATING:

Hot water.

## PLUMBING:

Hot and cold water to lavatory and garage.

## ELECTRICAL EQUIPMENT:

Factory reflectors in garage and store room; office lights in office.

## NUMBER OF CARS ACCOMMODATED:

Six trucks, four passenger cars, one steam roller, one tractor, one compressor.

## APPROXIMATE CUBIC FOOTAGE:

80,000.

## COST PER CUBIC FOOT:

50 cents.

## DATE OF COMPLETION:

July, 1926.

## MISCELLANEOUS DATA:

Shops in one wing; storage for water department in opposite wing.

sizable addition can be added which will completely close in the wide rectangular courtyard. In the group are included large storage rooms or sheds designed to house material belonging to various departments of the village, such as water supply and repair apparatus. The Village of Larchmont is showing unusual appreciation of good municipal architecture. It also possesses a splendid building

used as a fire house and auditorium, and designed by Charles F. Mink and Otto R. Eggers, which was published in THE FORUM for June, 1927. If such a precedent for good architecture as Larchmont is setting should be followed by other small towns and villages, what an improvement in taste would follow, and what increased public appreciation of good architecture would be achieved where it is now so lacking.



Office Door



Office Wing

Village of Larchmont Garage  
W. Kenneth Watkins, Architect



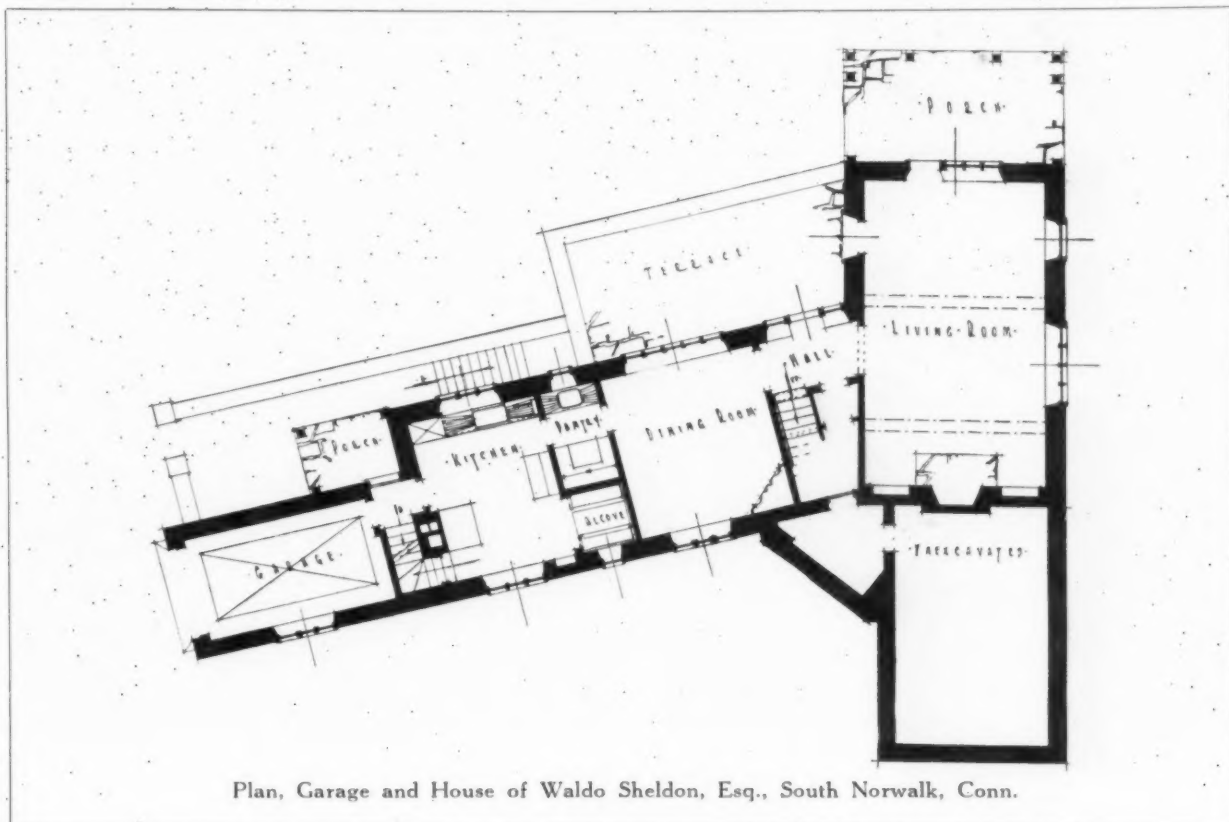
Photos. John Wallace Gillies

## GARAGE OF WALDO SHELDON, ESQ., SOUTH NORWALK, CONN.

FRANK J. FORSTER, ARCHITECT

WHERE the grade falls away sufficiently, it is often possible to place a garage in the basement of a country house. It is, of course, more convenient if the garage can be located on the same level as the first floor. In the case of this house at South Norwalk, advantage has been taken of the hillside location, and the house was so placed as to give a pleasing, low character to the entrance front.

Thus the main floor of the house is located several feet below the grade of the entrance front. To reach the main floor it is, therefore, necessary to descend several steps from the entrance porch. So successfully is the garage tied into the design of the house that it is not only an integral part of it but also from the front its purpose is not evident. The fall in grade makes it possible to enter the end of the



Plan, Garage and House of Waldo Sheldon, Esq., South Norwalk, Conn.



## FORUM SPECIFICATION AND DATA SHEET—191

Garage of Waldo Sheldon, Esq., South Norwalk, Conn.

Frank J. Forster, Architect

## OUTLINE SPECIFICATIONS

## GENERAL TYPE OF CONSTRUCTION:

Masonry.

## EXTERIOR MATERIALS:

Stone

## ROOF:

Wood shingles.

## WINDOWS:

Casements and steel sash.

## FLOORS:

Random-width planks; stone, linoleum, and tile.

## HEATING:

Hot water.

## PLUMBING:

Standard fixtures; gas hot-water heater.

## NUMBER OF CARS ACCOMMODATED:

One.

## APPROXIMATE CUBIC FOOTAGE:

44,229.

## COST PER CUBIC FOOT:

84 cents.

## DATE OF COMPLETION:

February, 1925.

garage on the first floor level and to conceal it by the use of hedges and planting. In this case the garage is reached from the main house through an entryway at the rear of the kitchen, which con-

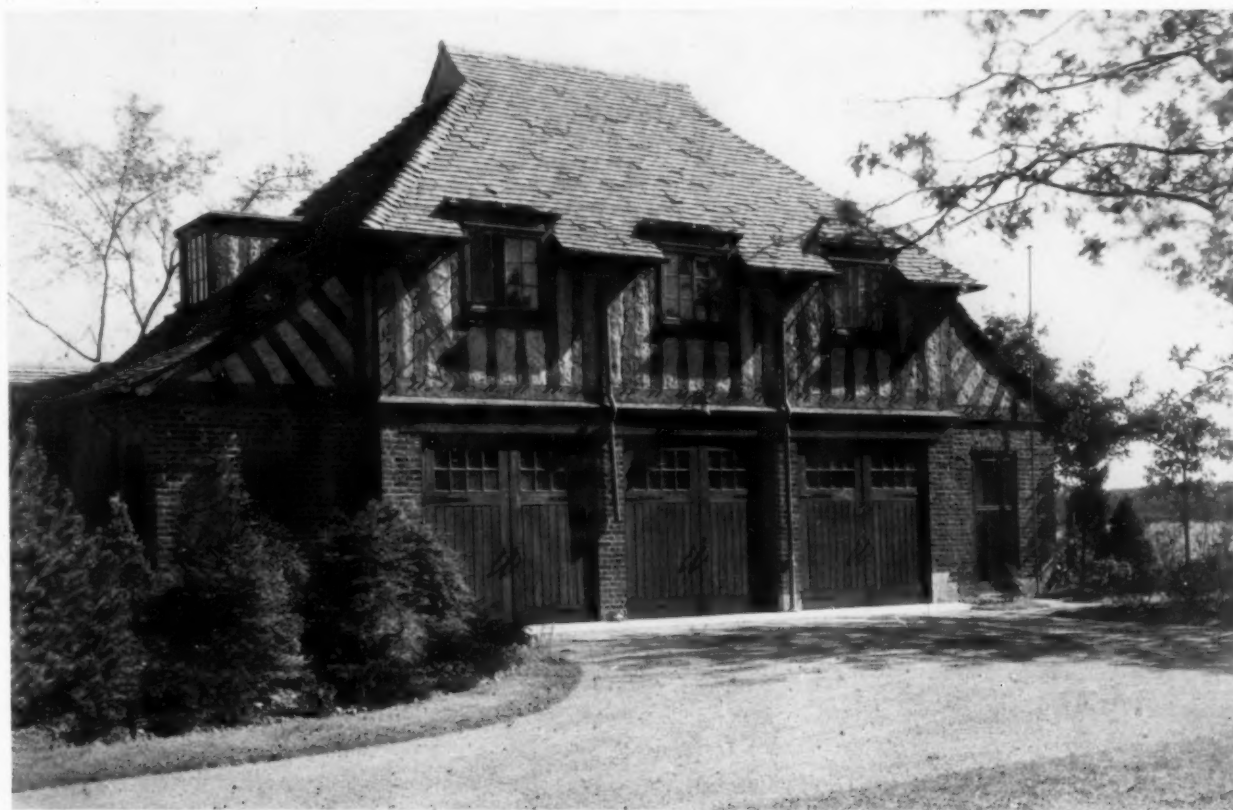
venient arrangement is most desirable wherever possible. In this case the low roof of the garage wing pleasantly breaks the roof lines of the entire building, adding much to the picturesqueness of the group.



Terrace, House of Waldo Sheldon, Esq., South Norwalk, Conn.

Frank J. Forster, Architect





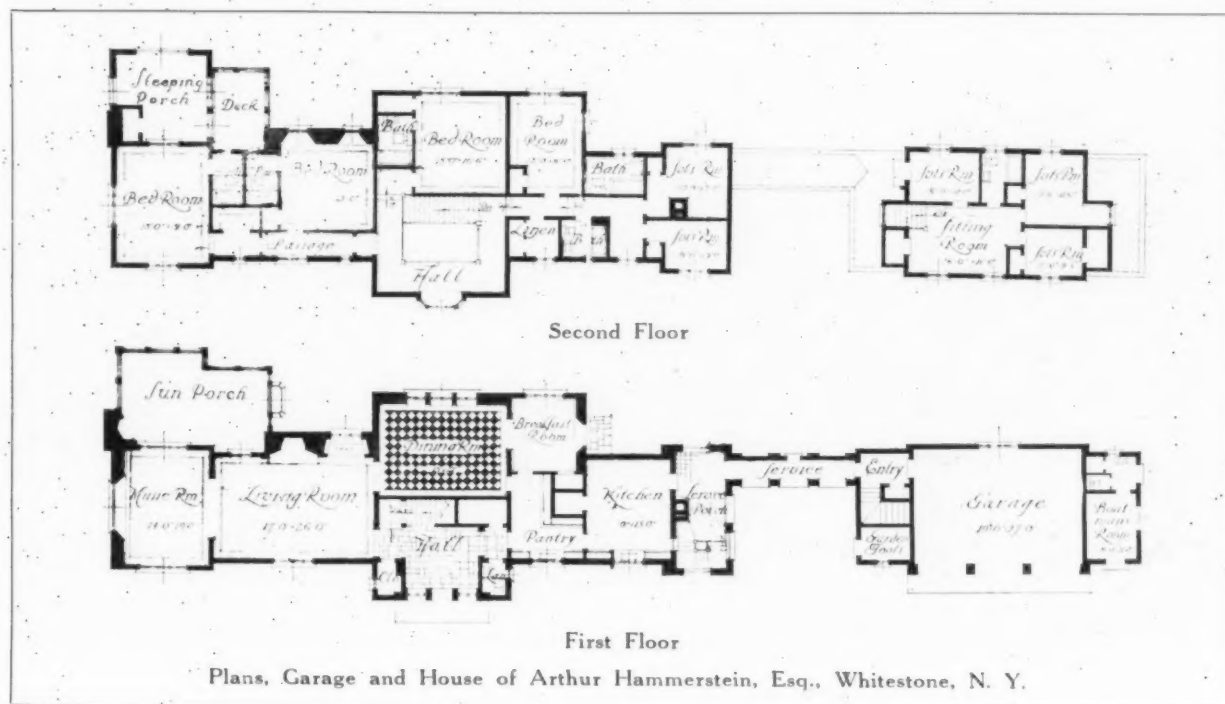
Photos, John Wallace Gillies

## GARAGE OF ARTHUR HAMMERSTEIN, ESQ., WHITESTONE, N. Y.

DWIGHT JAMES BAUM, ARCHITECT

THIS garage in the English style forms an important part of the design of this country house group. A covered brick arcade ties the garage into the house in an attractive architectural manner and repeats, in the materials and design used, the defi-

nite style of the house itself. The half-timberwork of the second story contrasts in its less pretentious construction with the dignified brick walls of the structure. The high roof, broken by dormer windows, has a domestic or farm-like character appro-



## FORUM SPECIFICATION AND DATA SHEET—192

Garage of Arthur Hammerstein, Esq., Whitestone, N. Y.

Dwight James Baum, Architect

## OUTLINE SPECIFICATIONS

## GENERAL TYPE OF CONSTRUCTION:

Brick and half-timber.

## EXTERIOR MATERIALS:

Face brick, stucco and oak half-timber.

## ROOF:

Antique shingle tile.

## WINDOWS:

Steel casements.

## FLOORS:

Cement.

## HEATING:

Vapor, from house.

## NUMBER OF CARS ACCOMMODATED:

Three.

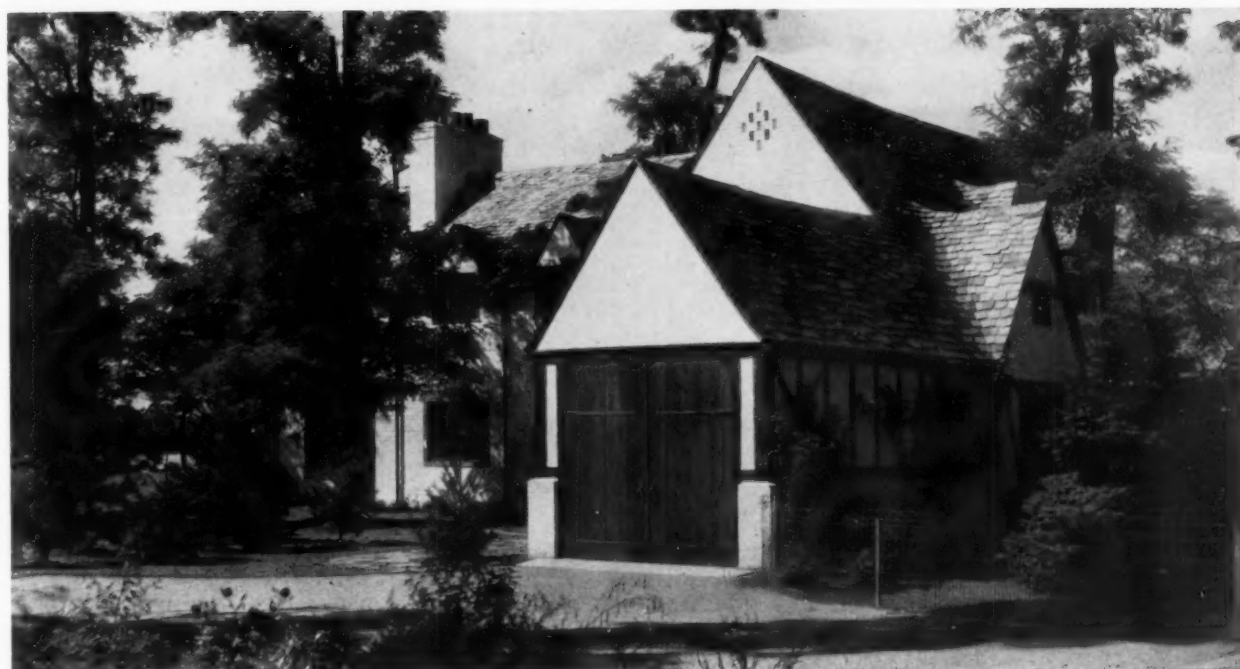
priate to a service building on a country estate. The plan of the garage is also clearly indicated by the short one-story wings on either end, over which are brought down the long sweeps of the high roof. These small wings contain a stairway and tool room on one side and a bedroom and bath on the other. The height of the roof makes it possible to locate a sitting room and bedrooms for the chauffeur and

servants on the second floor. The roof is so designed that there is very little slope to diminish the height of these second story rooms, and yet the exterior elevation gives the effect of a low building. The flat tile of the roof, the hand-hewn half-timberwork, and the rough stucco give a picturesque quality to an otherwise rather formal building. This is an excellent plant and arrangement for a three-car garage.



House and Garage of Arthur Hammerstein, Esq., Whitestone, N. Y.

Dwight James Baum, Architect



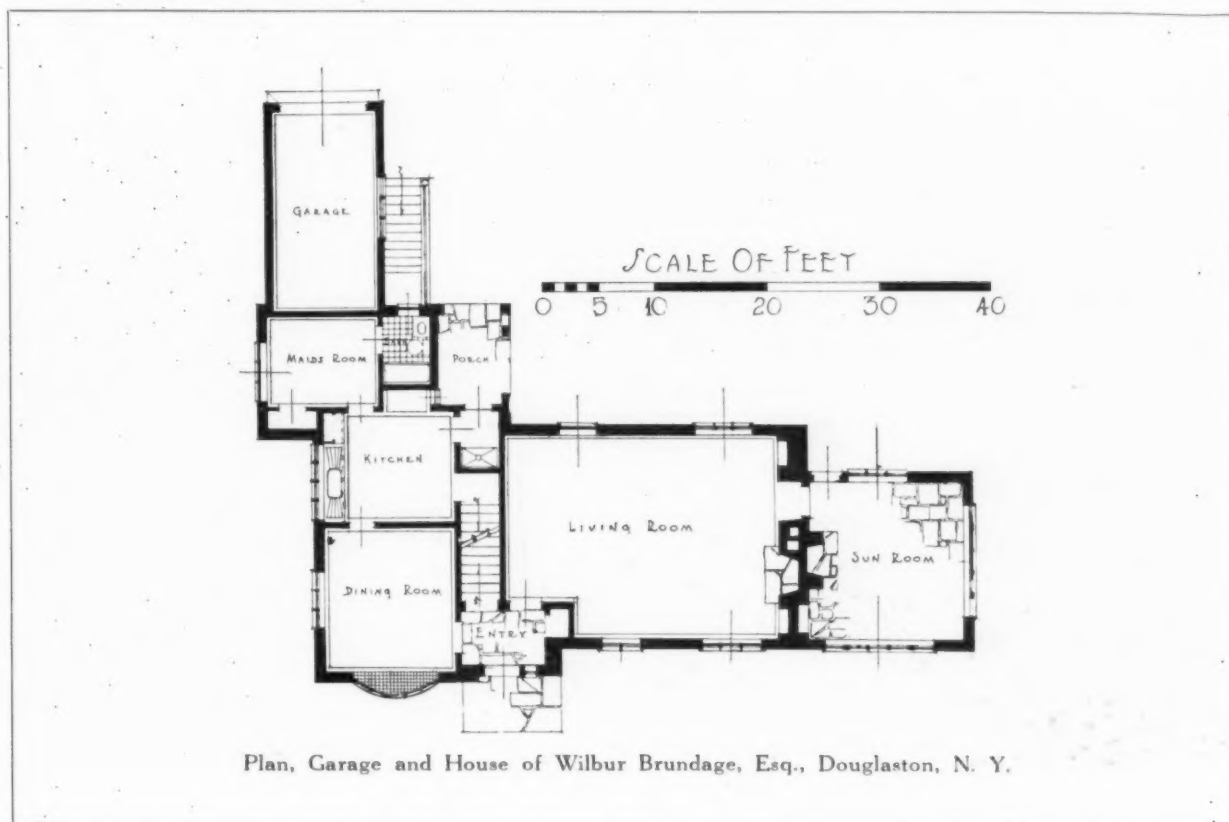
Photos. John Wallace Gillies

## GARAGE OF WILBUR BRUNDAGE, ESQ., DOUGLASTON, N. Y.

FRANK J. FORSTER, ARCHITECT

IN the development of a country house, large or small, the garage is often designed as an integral part of the house. This incorporation of the garage in the house itself has several advantages, among which is the convenience to an owner of being able to reach his garage in bad weather without going

out of doors. However, many garages thus structurally connected strangely enough have no doors opening into the houses themselves. This is probably due to a desire to keep down insurance rates, which in some sections of the country are higher if a garage is connected to a house by a door, even



Plan, Garage and House of Wilbur Brundage, Esq., Douglaston, N. Y.



## FORUM SPECIFICATION AND DATA SHEET—193

Garage of Wilbur Brundage, Esq., Douglaston, N. Y.

Frank J. Forster, Architect

## OUTLINE SPECIFICATIONS

## GENERAL TYPE OF CONSTRUCTION:

Stucco and half-timber.

## EXTERIOR MATERIALS:

Half-timber; brick base.

## ROOF:

Slate.

## WINDOWS:

Metal.

## FLOORS:

Concrete.

## HEATING:

Hot water, from house.

## PLUMBING:

Water supply.

## NUMBER OF CARS ACCOMMODATED:

One.

## APPROXIMATE CUBIC FOOTAGE:

35,300.

## COST PER CUBIC FOOT:

81 cents.

## DATE OF COMPLETION:

June, 1925.

though the door be of fireproof construction. Another decided advantage in having the garage form a part of the house itself is that it makes possible a more picturesque and interesting exterior design. As in the illustration given here, the single-car garage which adjoins the main house at right angles forms one side of a small courtyard in front of the service entrance door. In the case of the Brundage house there is no door which connects the garage with the house proper. It might have been possible to have extended the gable formed by the maid's room, so that from this room a narrow corridor could have been taken off which would have led from the kitchen to the garage. The use of half-timber for

the walls of the garage above the high brick base course gives a note of variety in contrast to the whitewashed brick walls of the house itself. There is not much that can be said in regard to the planning of a small garage except that wherever possible there should be included a strongly constructed workbench with drawers and cupboards below, and an open sink supplied with hot and cold water; also that, whenever feasible, the garage floor should be sloped to a drain so that it would be possible to wash a car indoors in cold weather. Private garages built to accommodate two or more cars should include small workrooms as well as chauffeurs' bedrooms and their baths,—almost as important as the garages.



House of Wilbur Brundage, Esq., Douglaston, N. Y.

Frank J. Forster, Architect



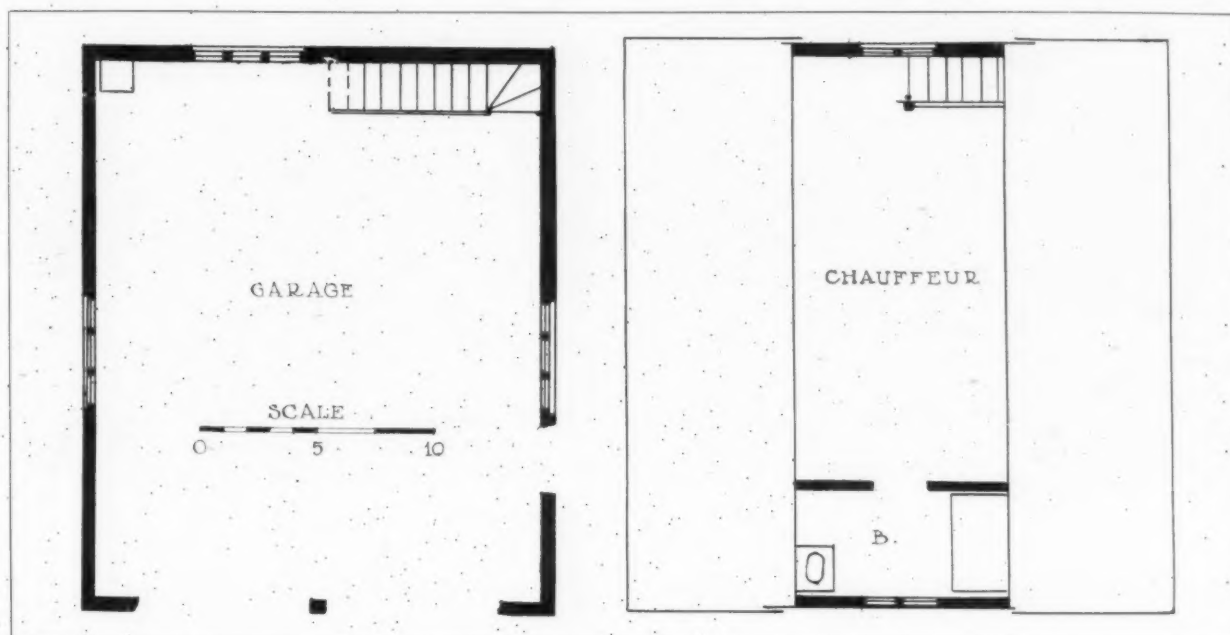


*Photos, John Wallace Gillies*

GARAGE OF CHARLES H. CUNO, ESQ., MERIDEN, CONN.  
FRANK J. FORSTER, ARCHITECT

HERE is a detached two-car garage with chauffeur's bedroom and bath on the second floor. The proportions of this little building are excellent. The high pitched roof, the casement windows and

the interesting planked treatment of the doors all give character to an otherwise plain design. Where gutters are omitted it is always wise to use a metal strip, as was done here above the side entrance door



## FORUM SPECIFICATION AND DATA SHEET—194

Garage of Charles H. Cuno, Esq., Meriden, Conn.  
Frank J. Forster, Architect

## OUTLINE SPECIFICATIONS

## GENERAL TYPE OF CONSTRUCTION:

Stucco on frame.

## EXTERIOR MATERIALS:

Stucco; oak doors and trim.

## ROOF:

Slate.

## WINDOWS:

Steel casements.

## FLOORS:

Concrete.

## HEATING:

Hot water, from house.

## PLUMBING:

Complete bathroom.

## NUMBER OF CARS ACCOMMODATED:

Two.

## APPROXIMATE CUBIC FOOTAGE:

6,720,—garage only.

## COST PER CUBIC FOOT:

70 cents.

## DATE OF COMPLETION:

November, 1923.

of the garage, to keep the water from dripping on the door step. The flagstone walk and low, stucco-covered wall help to tie in the design of this garage with that of the house itself. Wherever possible, an excellent plan is to connect a detached garage with the house by means of a colonnade or covered walk; even a pergola, thickly covered with vines, may well serve this purpose. When no covering is provided

for the walk, the garage should be located as closely adjacent to the house as possible. This is particularly important in northern climates, where the winters are long and the snow deep at times. In designing covered walks to connect houses and garages, it is a good idea to enclose one side of the arcade or covered way with either a wall or glass sashes, to aid in making the composition rather more complete.



House of Charles H. Cuno, Esq., Meriden, Conn.

Frank J. Forster, Architect

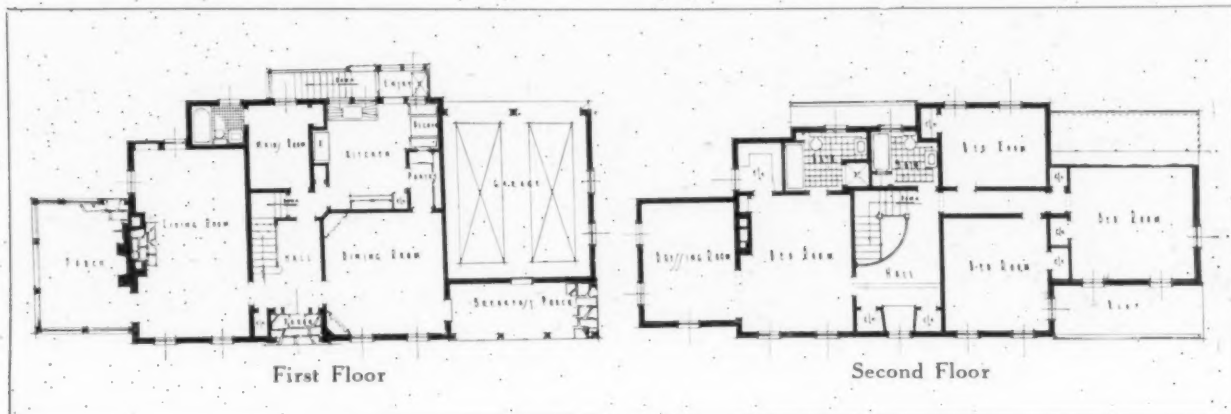


Photos, John Wallace Gillies

GARAGE OF CHESTER YOUNG, ESQ., PELHAM, N. Y.  
FRANK J. FORSTER, ARCHITECT

GIVEN the character of an old time carriage house or woodshed, this garage at Pelham is very definitely not only a part but a very important part of the design of the house. This fact is more noticeable on the rear elevation, which is designed in two stories, making possible windows for the rooms above the garage, as well as an attractive small breakfast porch on the first floor, the porch also serving as a covered passageway between the house and the garage. The illustration on the next page shows at the back of the small porch a door which opens directly into the garage. As is true of all of

Mr. Forster's work, the detail is given much thought and study; the small paned windows are well proportioned and carefully placed, and the simple cornices are well designed. So much a part of the house is this garage that it is difficult to discuss the one without including the other. There is a delightfully prim neatness about this entire design which suggests its New England antecedents and shows that the architect is quite as much at home when working with early American precedent of different kinds, as he is when designing in the English cottage styles, with skill for which he is widely known.





## FORUM SPECIFICATION AND DATA SHEET—195

Garage of Chester Young, Esq., Pelham, N. Y.

Frank J. Forster, Architect

## OUTLINE SPECIFICATIONS

GENERAL TYPE OF CONSTRUCTION:  
Frame.EXTERIOR MATERIALS:  
Shingles.ROOF:  
Shingles.WINDOWS:  
Wood; double-hung.FLOORS:  
Random-width planks of oak and pine.HEATING:  
Hot water.PLUMBING:  
Standard.NUMBER OF CARS ACCOMMODATED:  
Two.APPROXIMATE CUBIC FOOTAGE:  
44,657.COST PER CUBIC FOOT:  
63 cents.DATE OF COMPLETION:  
May, 1925.

Breakfast Porch, House of Chester Young, Esq., Pelham, N. Y.

Frank J. Forster, Architect



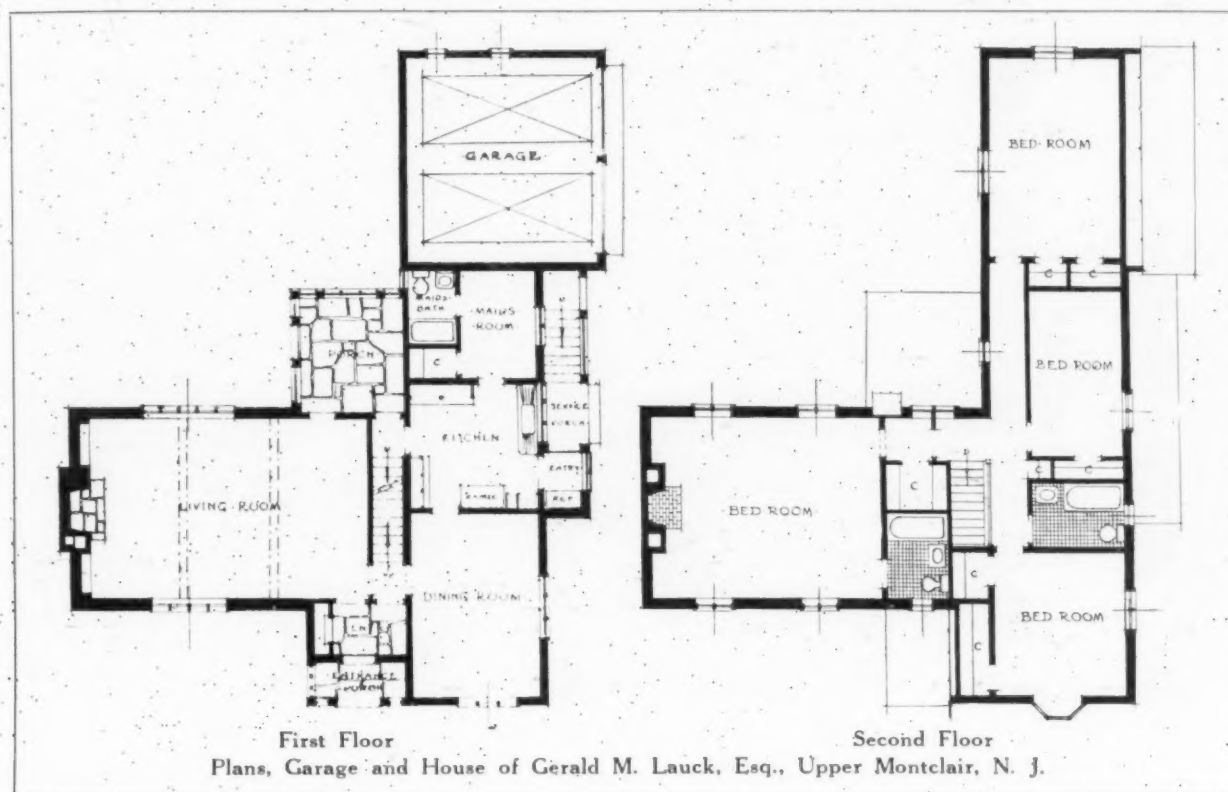
Photos, John Wallace Gillies

GARAGE OF GERALD M. LAUCK, ESQ., UPPER MONTCLAIR, N. J.

FRANK J. FORSTER, ARCHITECT.

HERE is one of Mr. Forster's small buildings designed in a simple adaptation of the English country house style. The building is covered with stucco and roofed in an interesting manner with rough slates of varying sizes. The second story windows break the roof, accentuating the low lines of the house. The garage at one end is so well tied into the entire design by a continuation of the main roof down over it that were it not for the wide plank doors no suggestion of a garage would be given. The low roof of the garage is repeated by the roof of the service porch, which might have been

on the same level as the garage roof were it not for the second story dormer windows, which would have been too high for the rooms had these roof levels been the same. No direct connection exists between the garage and the house itself. Had it been possible to locate the outside cellar steps in some other place, the servants' porch might have served as a covered passage to the garage, as was the case in the Young house, illustrated on pages 179 and 180. One advantage in including a garage as a part of the house is the possibility of locating servants' quarters above it, an excellent plan, giving more bedrooms.



## FORUM SPECIFICATION AND DATA SHEET—196

Garage of Gerald M. Lauck, Esq., Upper Montclair, N. J.  
 Frank J. Forster, Architect

## OUTLINE SPECIFICATIONS

GENERAL TYPE OF CONSTRUCTION:  
 Frame.

EXTERIOR MATERIALS:  
 Brick veneer; stucco, whitewashed.

ROOF:  
 Slate.

WINDOWS:  
 Steel casements.

FLOORS:  
 Random-width oak planks, linoleum and tile.

HEATING:  
 Hot water.

PLUMBING:  
 Standard.

NUMBER OF CARS ACCOMMODATED:  
 Two.

APPROXIMATE CUBIC FOOTAGE:  
 32,400.

COST PER CUBIC FOOT:  
 84 cents.

DATE OF COMPLETION:  
 May, 1925.



Detail, Garage of Gerald M. Lauck, Esq., Upper Montclair, N. J.

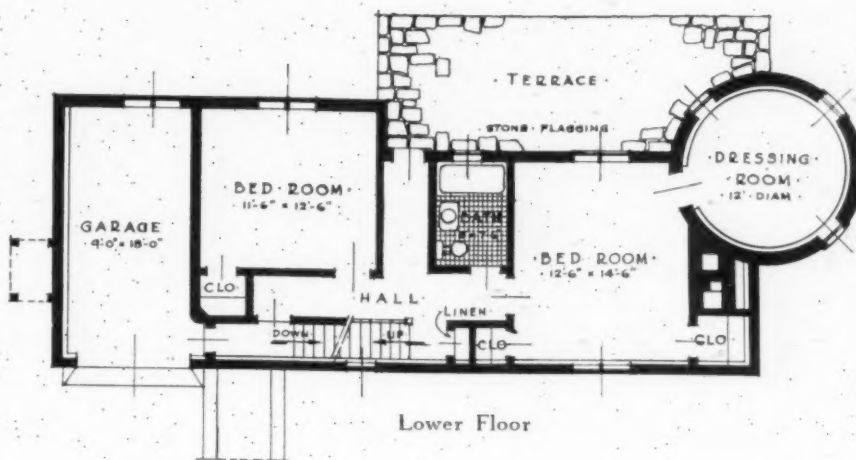
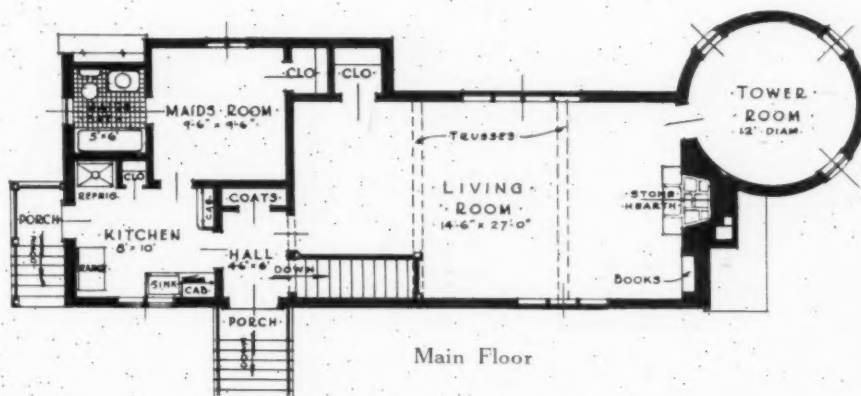
Frank J. Forster, Architect





Photos, John Wallace Gillies

GARAGE OF W. W. SIEBERT, ESQ., GREAT NECK, N. Y.  
FRANK J. FORSTER, ARCHITECT



## FORUM SPECIFICATION AND DATA SHEET—197

Garage of W. W. Siebert, Esq., Great Neck, N. Y.

Frank J. Forster, Architect

## OUTLINE SPECIFICATIONS

## GENERAL TYPE OF CONSTRUCTION:

Stucco on frame.

## EXTERIOR MATERIALS:

Stucco.

## ROOF:

Wood shingles.

## WINDOWS:

Wood casements.

## FLOORS:

Random-width pine.

## HEATING:

Hot water.

## PLUMBING:

Standard.

## NUMBER OF CARS ACCOMMODATED:

One.

## APPROXIMATE CUBIC FOOTAGE:

25,169.

## COMPLETED COST PER CUBIC FOOT:

65 cents.

## DATE OF COMPLETION:

October, 1926.

IN this unusual small house located on a steep hillside not only the garage but also the principal bedrooms are located on the lower floor. On account of the unusual drop in grade, all of these rooms have large, full-sized windows on the rear of the house. Above the garage and bedrooms, on what is really the main floor of the house, are located the living rooms and kitchen, reached by a flight of stone steps at the right of the garage. The design of this

house is as unique as it is picturesque. Its plan is so arranged that it is possible to have a door opening directly from the garage into the house itself. This door opens from the garage into a small stair-hall, connecting directly with the bedroom floor and, by means of a stairway, with the cellar below. The ingenuity and originality shown in the planning of this house are both delightful and entertaining. It abounds in details which are interesting and unusual.



Detail, House of W. W. Siebert, Esq., Great Neck, N. Y.

Frank J. Forster, Architect

# INTERIOR ARCHITECTURE

## Owlpen Manor House, Gloucestershire—Part II

By HAROLD D. EBERLEIN

SINCE it exists practically unchanged since the time it was built during the reign of James I, Owlpen Manor House affords a rich field for study by the architectural designer. The accompanying illustrations and measured drawings so fully convey the requisite particulars respecting general style and treatment of details that only a few explanatory comments are needed to fully cover what the illustrative material here does not explicitly show.

The material of which the house is built is the native limestone of the Cotswolds, which after exposure to the weather ranges in color from silvery gray to warm cream and tawny browns. Often in the same wall a rich gradation of colors may be found. The roof slates, as is customary throughout the region, are fashioned from the same material as the walls and take on a silver gray, flecked with moss growths and lichens. Indoors, the same limestone, where used for fireplaces, mullions and doorways, is likely to bleach to a light ashén hue, much lighter than the color of the stone when it is freshly quarried. Cut into rectangular slabs and used for floor paving, it gradually acquires a peculiarly mellow color, varying from warm cream to a light leather brown. The masonry of the walls in some places is rubble, while in others there is a face of carefully dressed ashlar. The roughcast plaster, which appears in some of the gables and on portions of the walls, marks repairs and patches that have been made from time to time. At one point on the main front, where the wall had bulged and then been strengthened with tie-irons, the whole adjoining surface was given a coat of roughcast stucco, blending well with the stonework.

In the great hall the hob grate built into the fireplace is of later date, of course, than the house. The oak paneling, in the lapse of centuries, has



Detail of Main Facade, Owlpen Manor House

sagged and slipped down over the upper part of the carved stonework of the fireplace. Through a doorway of the great hall can be seen a part of the paneling in one of the rooms beyond, and in one room there appear curious curved lines on the surface of each panel.

These curving lines, which are crudely painted on the oak, represent an early seventeenth century attempt at graining,—one of the earliest attempts on record, so far as England is concerned. All of the old glazing is in place. It displays no little diversity of sizes and shapes and quality of the glass itself. A good deal of it, apparently, was pieced together from various

sources at the outset, or else replacements were made at an early date, without much regard to uniformity of patterning throughout the house, or indeed in the same range of windows. To whatever cause these striking variations of sizes and leading may be attributable, the glass is old, and the effect is pleasant.

It is worth noting that many of the steps of the winding staircase are hewn from solid blocks of oak; their aspect agrees perfectly with the structural sturdiness displayed throughout the whole fabric. The durability of these steps is in sharp contrast to the condition of some of the floors which, until recent repairs were carried out, were in a sadly decayed state. In the dining room the Queen Anne paneling is painted a color that might be described as a cross between puce and faded salmon. Incidentally, this color and the tones closely related to it enjoyed great favor for woodwork in the late seventeenth century and the early years of the eighteenth. The effect is highly pleasing. In the bed chamber above the dining room the walls are hung with canvas painted in the manner of tapestry with verdure and human figures. The drawing is in the fashion of the late seventeenth century, but the work was



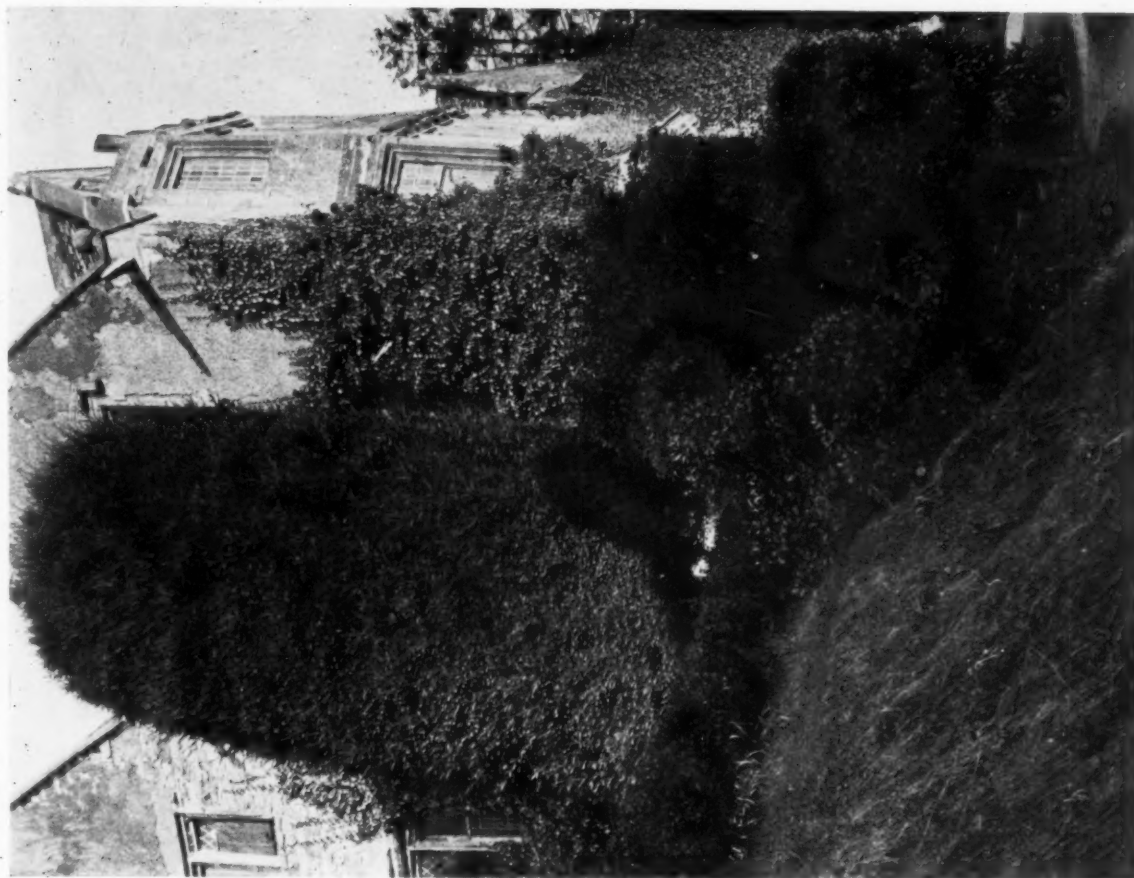


GARDEN "BALLROOM"



ALLEY AT NORTH END

OWLPEN MANOR HOUSE, GLOUCESTERSHIRE



NORTHWEST ANGLE



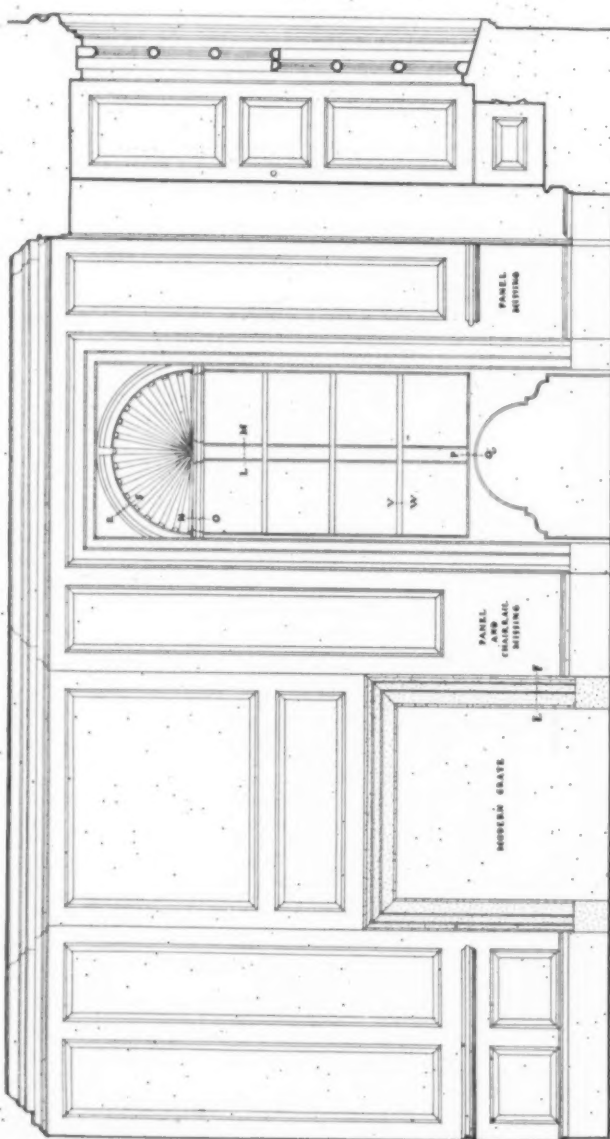
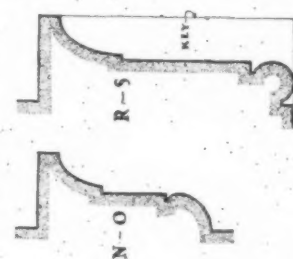
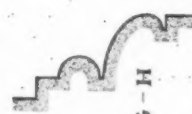
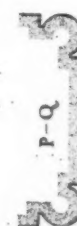
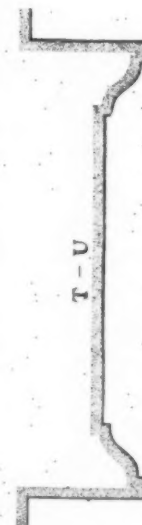
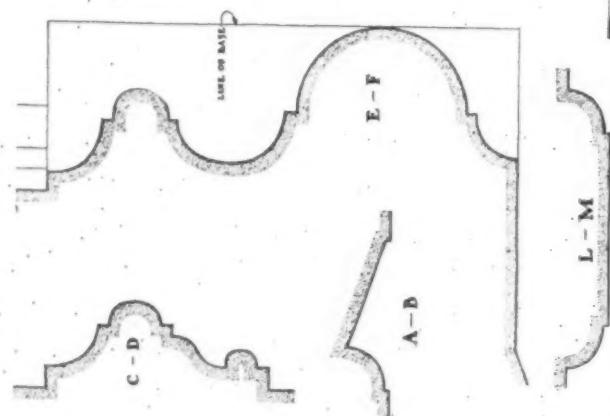
SOUTH GARDEN DOOR

OWLPEN MANOR HOUSE, GLOUCESTERSHIRE

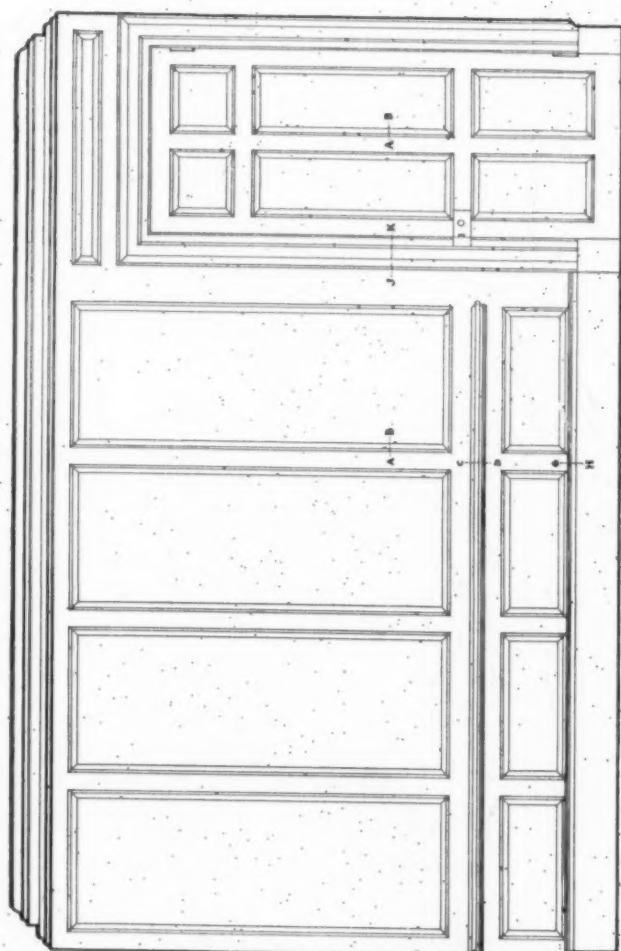
same scale as window and section.

same scale as window and section.

SECTION THROUGH  
WINDOW JAMB



EAST WALL



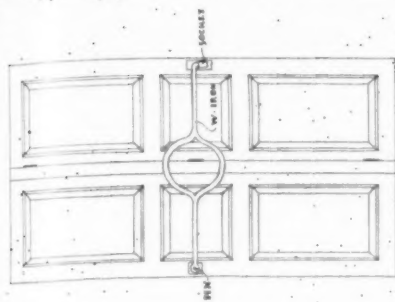
WEST WALL



SECTION THROUGH NICHE.  
Same scale as window jamb section.

SECTION THROUGH NICHE.  
Same scale as window jamb section.

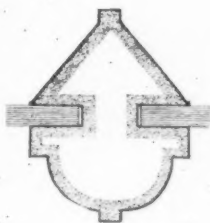




SHUTTERS



SHUTTER DETAIL

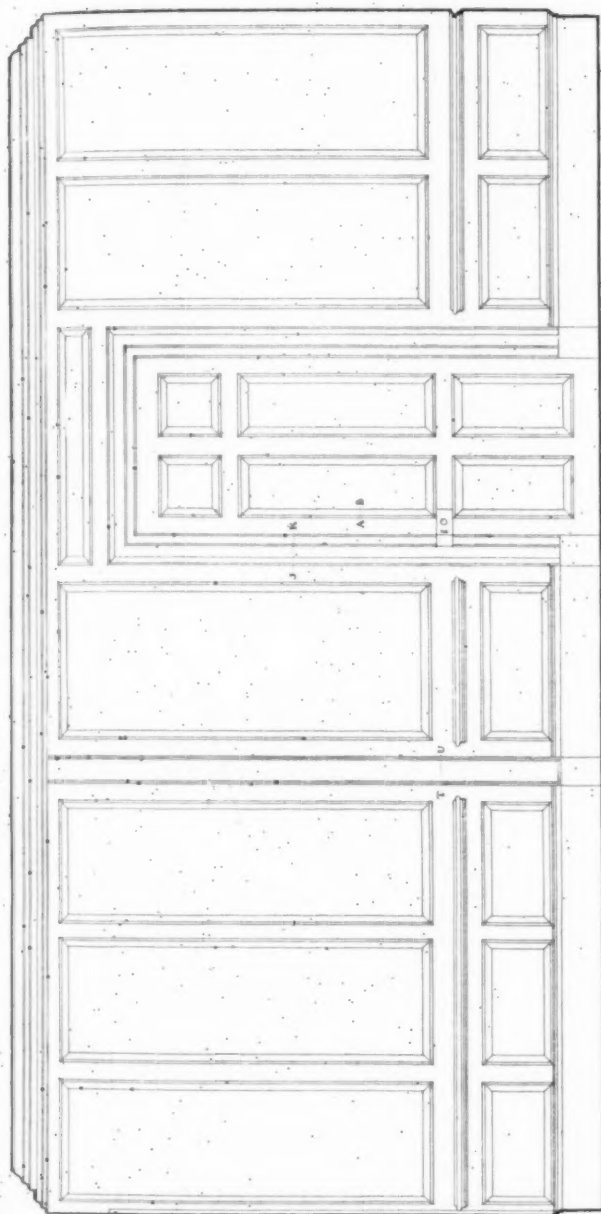


WINDOW DETAIL

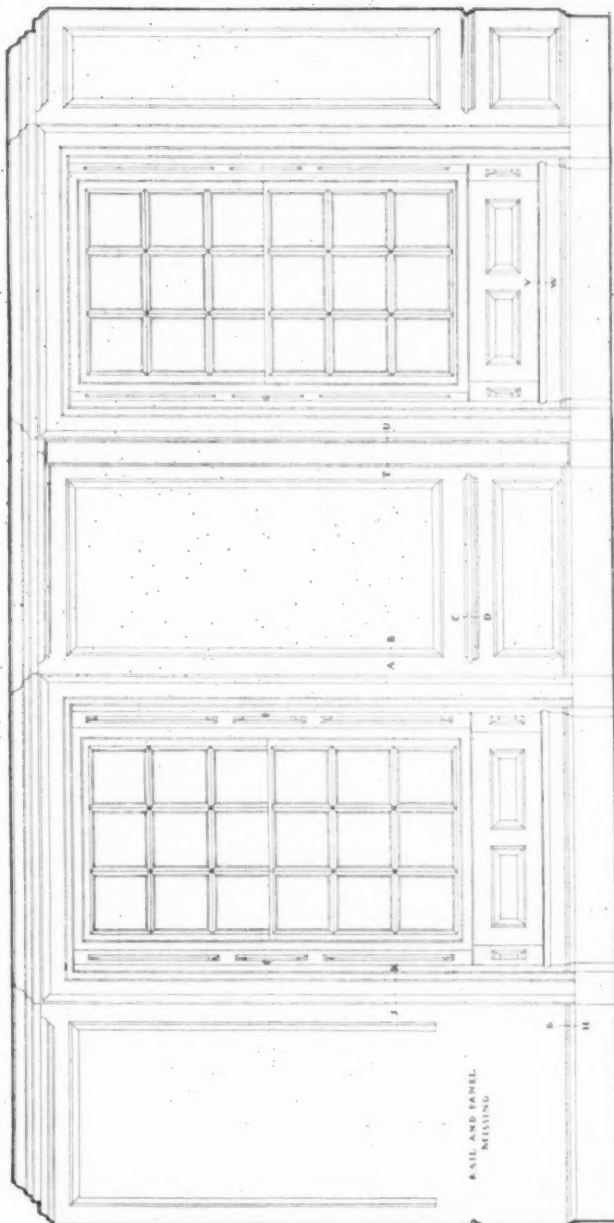


V-W

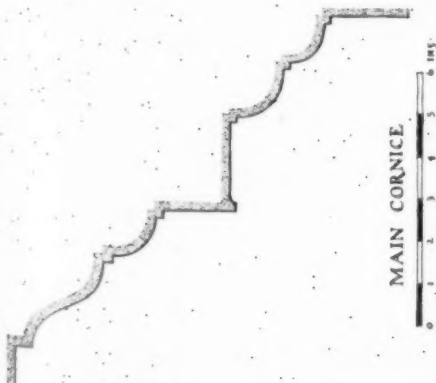
NOTE: THIS ROOM IS PAINTED  
A WARM GRAY - THE PANELS  
ARE SLIGHTLY DARKER



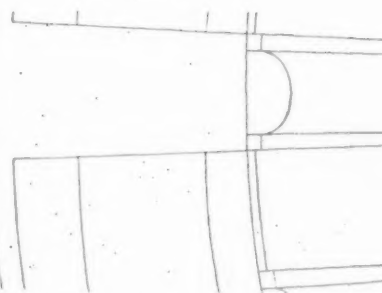
NORTH WALL



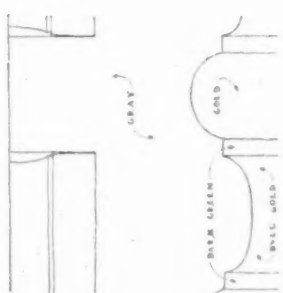
SOUTH WALL



MAIN CORNICE



ELEVATION



LOOKING UP

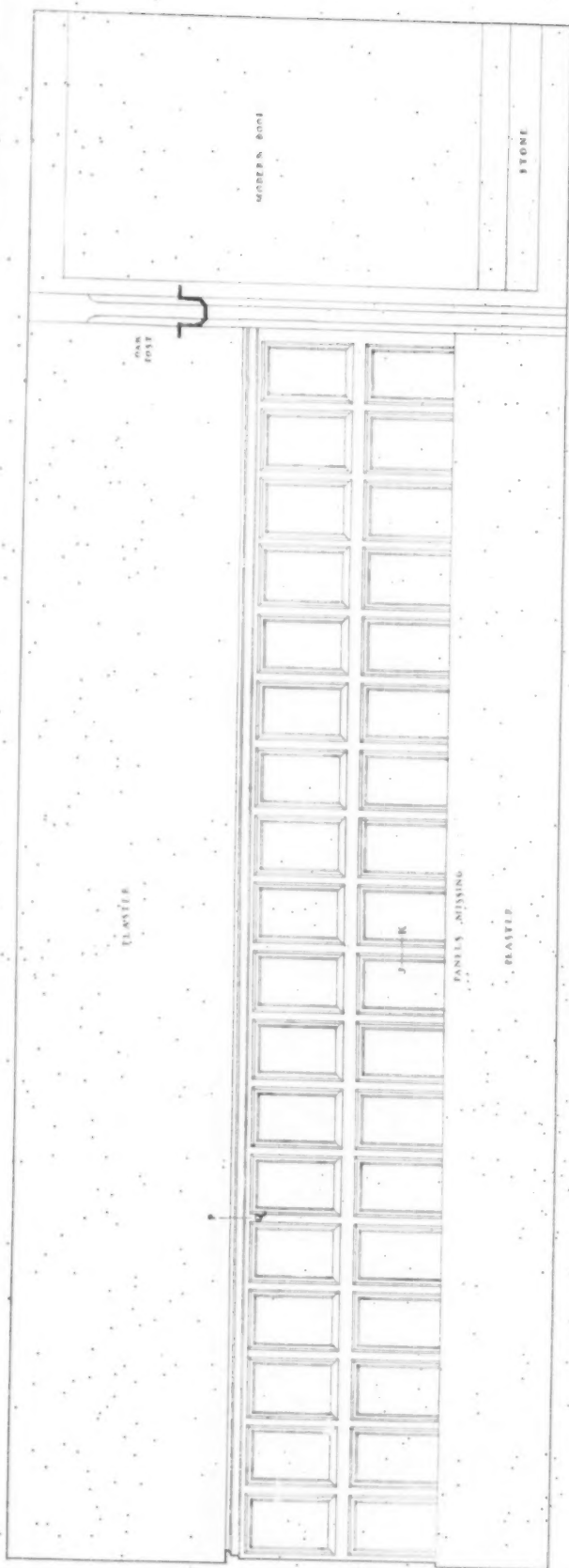
NICHE DETAILS

SCALE OF ELEVATIONS

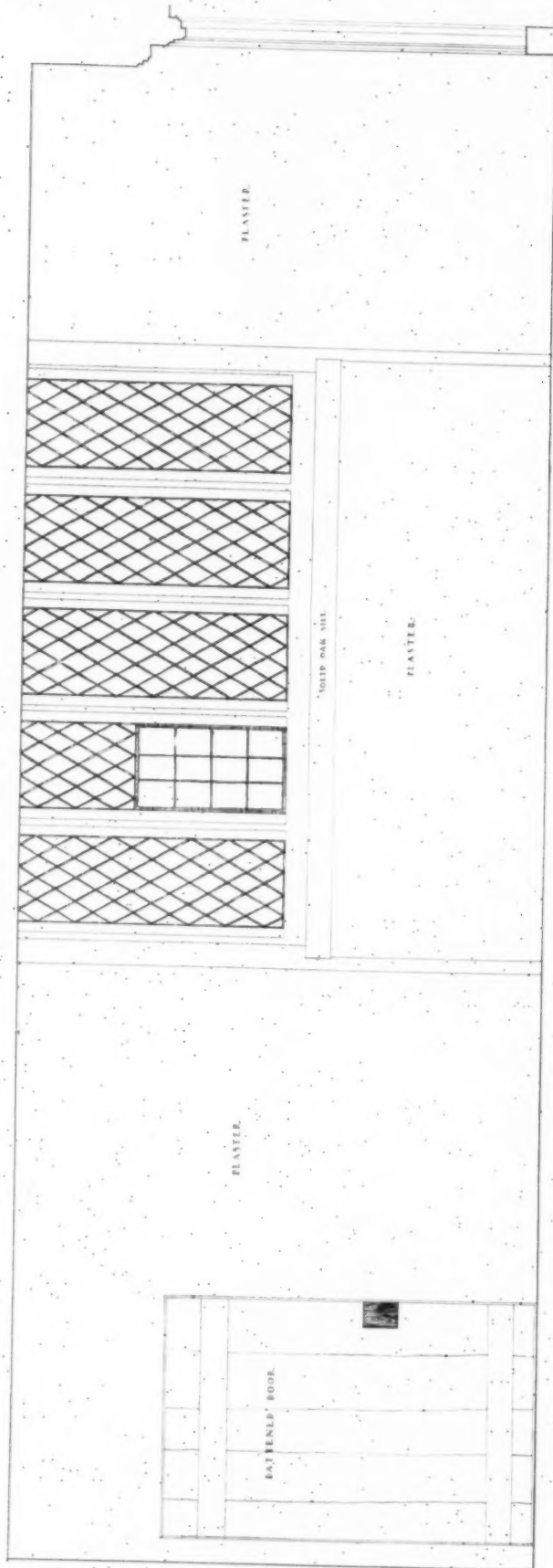
SCALE OF DETAILS

THE MANOR HOUSE OWLPEN, GLOS.

F. A. COMSTOCK, MENS. ET DEL.



NORTH WALL



SOUTH WALL

THE MANOR HOUSE  
OWLPEN, GLOS.

THE  
HALL

SCALE FOR ELEVATIONS



SCALE FOR DETAILS



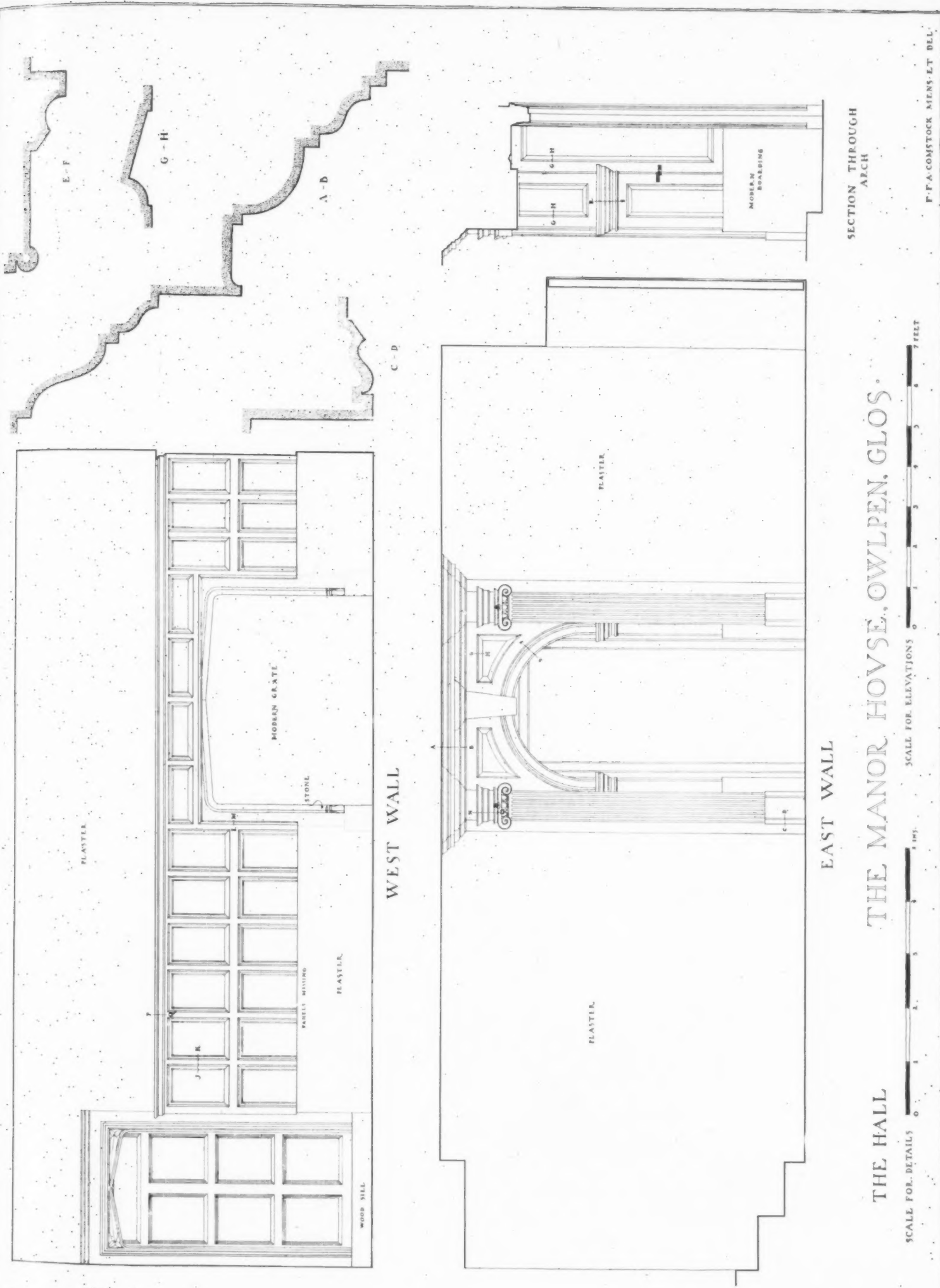
J-K

L-N

R-S

T-Q

N-D





probably executed when the Queen Anne embellishments were installed. The different greens of the foliage prevail, but the garments of the small figures, gathered in occasional groups, give an opportunity for brilliant color accents. These painted canvas hangings are remarkably well preserved and afford an exceptional example of a sort of wall decoration of which very few traces are left. The beautifully necked and moulded chimneystacks and the carved finials on the peaks of the gables and dormers are, of course, thoroughly characteristic of the Cotswolds. The Cotswold limestone is a peculiarly favorable medium for sculpture and the carving of mouldings, and the old builders rarely lost an opportunity of adding at least the graces of mouldings and paneling.

The garden in which Owlpen Manor House is set, and with which it is so inseparably associated, is one of the finest and most satisfying things of its kind anywhere to be found. In actual area it is not large, but its form and structural planting have produced results of the utmost distinction. Near one end of the principal front of the house is the so-called "ballroom," parts of whose walls appear in several of these illustrations. The "ballroom" is a rectangular space of greensward—quite large enough for dancing on the green and other out-of-doors festivities—completely enclosed by high and dense walls of mixed boxwood and yew. Doors are cut through these thick walls of greenery. Along the tops of the walls at intervals are hemispheres, accurately shaped

and kept trimmed with unerring precision. The whole "ballroom" is a masterpiece of structural planting and topiary propriety. Separated from the "ballroom" by a graveled walk and a steep bank is another rectangular enclosure, of almost equal size, walled in by low hedges of boxwood, shaped and punctuated at intervals by great cylinders or drums of closely clipped yew. Fortunately, neither the "ballroom" nor the second enclosure has ever suffered neglect, and together they furnish a thoroughly convincing justification for the employment of the ancient topiary art in garden making. Topiary work of this sort supplies an architectonic quality that vastly enriches the garden, and nothing can ever take the place of it. Whimsical conceits, such as peacocks and dragons in yew, can be added if individual fancy calls for them, but, after all, they are merely playful incidents; the real fundamental value of topiary work is entirely structural in function.

Next above, on the steep slope of the hillside, is the rectangular flower garden. The whole garden layout, including the "ballroom" and the second boxwood and yew enclosure, consists of four rectangles of different sizes. It is all absolutely straightforward and simple and completely convincing in its coherence of form and logical arrangement. The whole scheme affords an illuminating example of definite and reasonable plan in garden design without any approach to that thing miscalled "formality," which seems to inspire so many with a sort of dread.



Great Hall, Owlpen Manor House, Gloucestershire